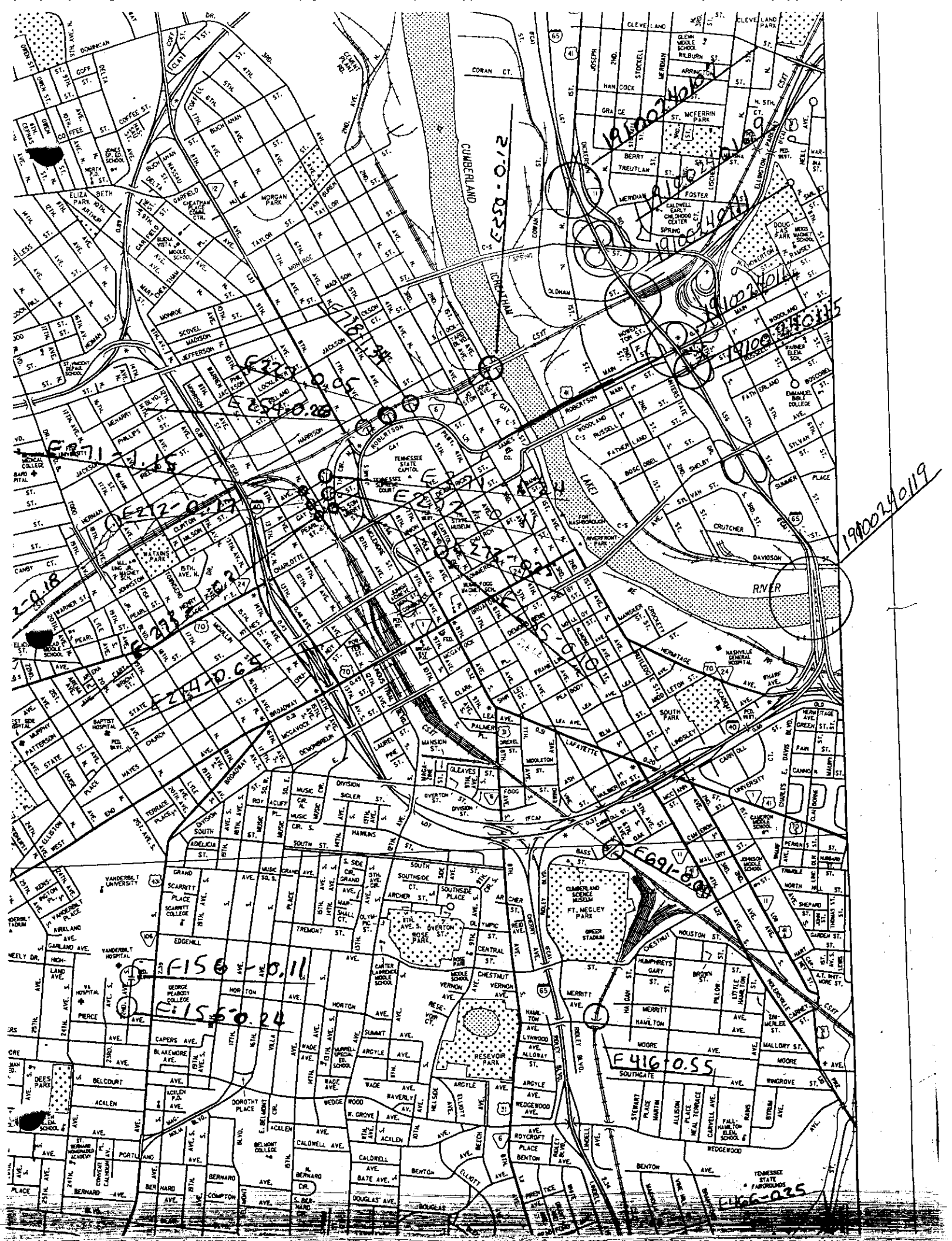
CUMBERLAND
CHEATHAM
RIVER
LAKE
F 0.52
F 0.12
F 0.28
F 0.05
F 0.27
F 0.17
F 0.23
F 0.24
F 0.6
F 0.11
F 0.24
F 0.55
F 0.83
F 0.91
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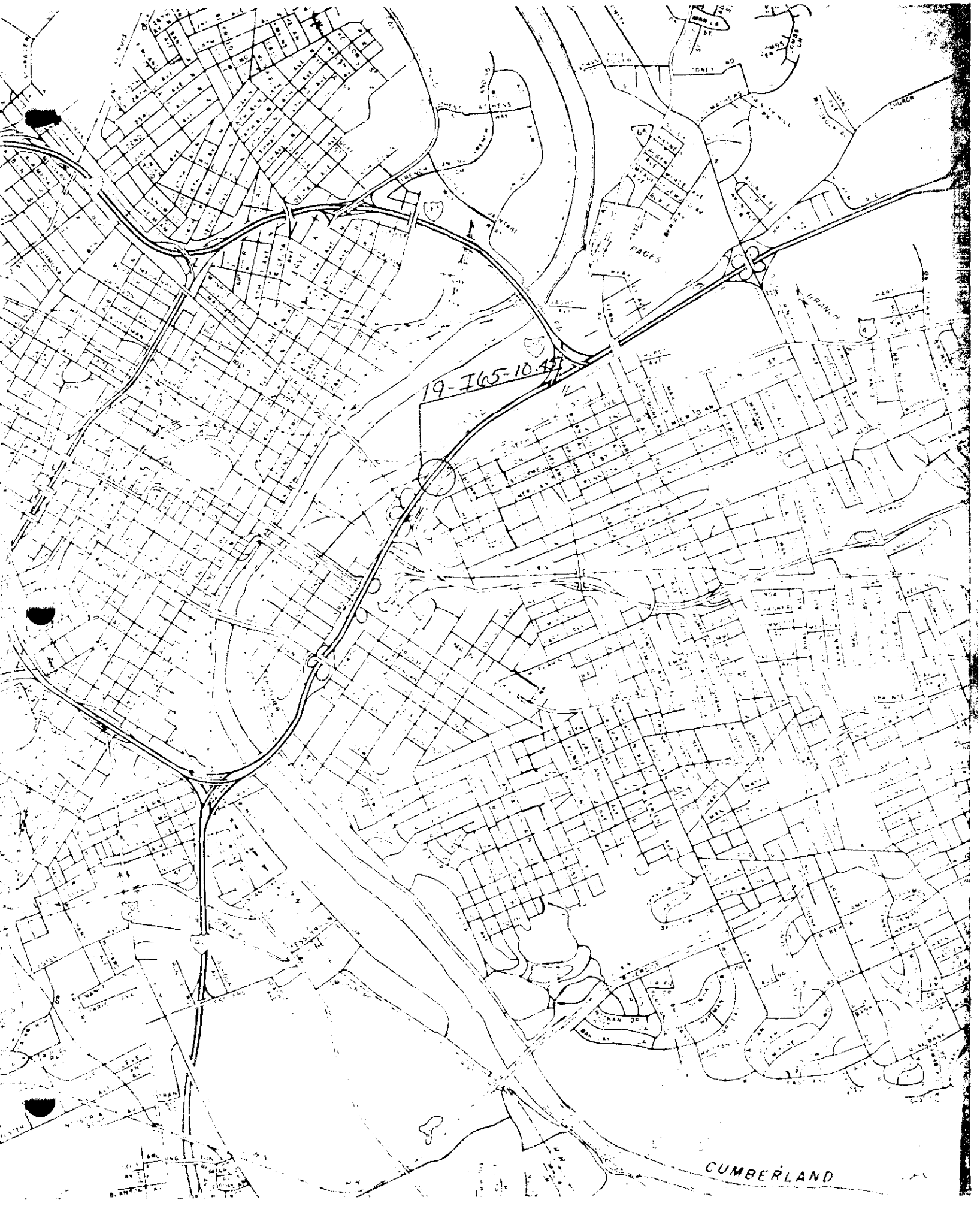
19-I65-10.43
CUMBERLAND

INFORMATION REGARDING PAVING OVER EXISTING STRUCTURES AND BRIDGERAIL, MEDIAN BARRIER, PIER PROTECTION

INFORMATION COMPILED BY: A. Armanios

COUNTY: DAVIDSON
PROJECT LIMITS: I-24 L.M (12.80-15.88)
TENTATIVE LETTING DATE:

FEDERAL PROJECT NO.
STATE PROJECT NO.
PIN NO. 131713.00

RESURFACING PROJECT TYPE: Mill & 411 D
DATE: 5/10/2022

BRIDGE NUMBER PRESENT BRIDGE LAYOUT NO.	CROSSING AGE OF STR.	IS VALID DECK TEST AVAILABLE YES/NO	BARE DECK YES/NO*	DECK SEALED YES/NO	UNDERPASS VERTICAL CLEARANCE	BRIDGE LENGTH	BRIDGE WIDTH & NO. LANES USED	TYPE OF JOINTS & LOCATIONS BRIDGE TYPE	BRIDGE RAIL UPGRADE NEEDED YES/NO	MEDIAN BARRIER UPGRADE NEEDED YES/NO	PIER PROTECT. NEEDED YES/NO	BRIDGE RAIL UPGRADE RECOMM.	MEDIAN BARRIER RECOMM.	PIER PROTECT. RECOMM.	BRIDGE DECK RECOMM.
19I00240101 19-I 24-12.90 Underpass	I-65 NB LNS. / RT. LNS. ONLY				EBL 14'-7"										15
19I00240105 19-I 24-13.05 Underpass	RAMP 46-B FROM I-24 WB LNS. TO I-65 SB LNS.				EBL 14'-8"										15
19I00240107 19-I 24-13.79 Original: K-10-126 Widen: M-130-1	3266 N. FIRST ST. Built 1961 Widened 1986	NO	NO Asphalt = 3"	YES		379'	122'-6" 7 LANES	ELASTOMERIC @ BENTS 1 & 3 / PAVED OVER WPG		NO	NO		----	----	12** & 14
19I00240109 19-I 24-14.03 Repair : BR-122-1	3258 SPRING ST. Rehabed 2017	NO	NO Asph = 3 1/4"	YES		220'-3 11/16"	126'-6" 8 LANES	INTEGRAL @ ABUTS PSCB		NO	NO		----	----	12**
19I00240111 19-I 24-14.22 BR-122-26	D612 OLDHAM ST. / CSXT [350182D] Rehabed 2017	NO	NO Asph = 3 1/4"	YES		322'	124' 8 LANES	PSCB		NO	NO		----	----	12**

(1.) LEAVE AS IS
(2.) PAVE WITH TOP COAT
(3.) PAVE WITH PLANS MIX/TREATMENT TYPE
(4.) REMOVE ASPHALT (IF PRESENT)- PROVIDE DECK REPAIR ITEMS- SEAL WITH MEMBRANE (BRIDGE SHEETS INCLUDED)
(5.) PROVIDE DECK REPAIR ITEM- SEAL WITH TYPE 1 THIN EPOXY OVERLAY (BRIDGE SHEETS INCLUDED)
(6.) PROVIDE BRIDGE WITH NEW JERSEY PARAPET RAIL (REF. DWG. NO. SBR-2-124,125 & 126)
(7.) PROVIDE BRIDGE WITH NEW PIER PROTECTION (REF. DWG. NO. SBR-2-127 & 128)(S)
(8.) PROVIDE BRIDGE WITH NEW PIER PROTECTION (REF. DWG. NO. SBR-2-129 & 130)(V)
(9.) PROVIDE GUARDRAIL ATTACHMENTS TO EACH END POST AT APPROACH ENDS (REF. DWG. NO. SBR-2-131 & 132)(S)
(10.) PROVIDE GUARDRAIL ATTACHMENTS TO EACH END POST AT APPROACH ENDS (REF. DWG. NO. SBR-2-133 & 134)(V)
(11.) PROVIDE GUARDRAIL ATTACHMENTS TO APPROACH END OF EXISTING PIER PROTECTION (REF. DWG. NO. SBR-2-135)

(12.) COLD PLANE 1 1/4" OF THE EXISTING ASPHALT AND REPLACE WITH 1 1/4" OF NEW ASPHALT.
IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.
(13.) COLD PLANE _____OF THE EXISTING ASPHALT AND REPLACE WITH_____OF NEW ASPHALT.
IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.
(14.) REPLACE BRIDGE JOINTS (BRIDGE SHEETS INCLUDED)
(15.) TO MAINTAIN MINIMUM VERTICAL CLEARANCE OF THE UNDERPASS
COLD PLANE TO MATCH THE THICKNESS OF TREATMENT

* ASPHALT AND/OR FILL
** *SEE ATTACHED SPECIAL NOTE*

Rec Sheet Revised on 7/12/19 by D. Palmore

INFORMATION REGARDING PAVING OVER EXISTING STRUCTURES AND BRIDGERAIL, MEDIAN BARRIER, PIER PROTECTION

INFORMATION COMPILED BY: A. Armanios

COUNTY: DAVIDSON
PROJECT LIMITS: I-24 L.M (12.80-15.88)
TENTATIVE LETTING DATE:

FEDERAL PROJECT NO.
STATE PROJECT NO.
PIN NO. 131713.00

RESURFACING PROJECT TYPE: Mill & 411 D
DATE: 5/10/2022

BRIDGE NUMBER PRESENT BRIDGE LAYOUT NO.	CROSSING AGE OF STR.	IS VALID DECK TEST AVAILABLE YES/NO	BARE DECK YES/NO*	DECK SEALED YES/NO	UNDERPASS VERTICAL CLEARANCE	BRIDGE LENGTH	BRIDGE WIDTH & NO. LANES USED	TYPE OF JOINTS & LOCATIONS BRIDGE TYPE	BRIDGE RAIL UPGRADE NEEDED YES/NO	MEDIAN BARRIER UPGRADE NEEDED YES/NO	PIER PROTECT. NEEDED YES/NO	BRIDGE RAIL UPGRADE RECOMM.	MEDIAN BARRIER RECOMM.	PIER PROTECT. RECOMM.	BRIDGE DECK RECOMM.
19I00240113 19-I 24-14.54 Widen: BR-110-01	MAIN STREET Rehabed 2012	NO	NO Asphalt = 3"	YES		204'-7 1/2"	119'-7" 7 LANES	PPCIB		NO	NO		----	----	12**
19I00240115 19-I 24-14.54 Original : K-10-91 Widen: BR-110-20	3244 WOODLAND ST. Rehabed 2012	NO	NO Asphalt = 3"	YES		189'-4 1/16"	119'-7" 7 LANES	PPCIB		NO	NO		----	----	12**
19I00240117 19-I 24-14.87 Underpass	5333 SHELBY ST.				EBL 15'-7"										15
					WBL 18'-9"										----
19I00240119 19-I 24-15.23 RT Original : H-13-3 BR-65-1	Cumberland River/Davidson Street/ CSXT Built 1961 Widened 1975	NO	NO Asphalt = 3"	YES		2362'	64'-6" Main Line, 40'-6" Rp 4 LANES	Exp. Devs. @ Bents & Abut.2; Modular @ Piers Appr.Span: S I B -Main Span: W P G		NO	NO		----	----	12**
19I00240120 19-I 24-15.23 LT Original : H-13-3 BR-65-1	Cumberland River/Davidson Street/ CSXT Built 1961 Widened 1975	NO	NO Asphalt = 3"	YES		2362'	64'-6" Main Line, 40'-6" Rp 4 LANES	Exp. Devs. @ Bents & Abut.2; Modular @ Piers Appr.Span: S I B -Main Span: W P G		NO	NO		----	----	12**

(1.) LEAVE AS IS
(2.) PAVE WITH TOP COAT
(3.) PAVE WITH PLANS MIX/TREATMENT TYPE
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COLD PLANE TO MATCH THE THICKNESS OF TREATMENT

* ASPHALT AND/OR FILL
** *SEE ATTACHED SPECIAL NOTE*

Rec Sheet Revised on 7/12/19 by D. Palmore

INFORMATION REGARDING PAVING OVER EXISTING STRUCTURES AND BRIDGERAIL, MEDIAN BARRIER, PIER PROTECTION

COUNTY: DAVIDSON
PROJECT LIMITS: I-24 L.M (12.80-15.88)
TENTATIVE LETTING DATE:

INFORMATION COMPILED BY: A. Armanios
FEDERAL PROJECT NO.
STATE PROJECT NO.
PIN NO. 131713.00

RESURFACING PROJECT TYPE: Mill & 411 D
DATE: 5/10/2022
PAGE: 3 of 3

BRIDGE NUMBER PRESENT BRIDGE LAYOUT NO.	CROSSING AGE OF STR.	IS VALID DECK TEST AVAILABLE YES/NO	BARE DECK YES/NO*	DECK SEALED YES/NO	UNDERPASS VERTICAL CLEARANCE	BRIDGE LENGTH	BRIDGE WIDTH & NO. LANES USED	TYPE OF JOINTS & LOCATIONS BRIDGE TYPE	BRIDGE RAIL UPGRADE NEEDED YES/NO	MEDIAN BARRIER UPGRADE NEEDED YES/NO	PIER PROTECT. NEEDED YES/NO	BRIDGE RAIL UPGRADE RECOMM.	MEDIAN BARRIER RECOMM.	PIER PROTECT. RECOMM.	BRIDGE DECK RECOMM.
19I00240119A 19-I 24-15.63 Underpass	RAMP FROM I-40 TO I-24 WB				EBL 48'-0"										----
19I00240121 19-I 24-15.67 RT Underpass	RAMP UNDER NERR				EBL 17'-10"										----
					WBL 15'-10"										15
19I00240123 19-I 24-15.71 (19-SR24-13.62RT.) Underpass	SR-24 HERMITAGE AVE.				EBL 17'-2"										----
19I00240124 19-I 24-15.74 (19-SR24-13.62LT.) Underpass	SR-24 HERMITAGE AVE.				EBL 14'-4"										15

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(3.) PAVE WITH PLANS MIX/TREATMENT TYPE
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COLD PLANE TO MATCH THE THICKNESS OF TREATMENT

* ASPHALT AND/OR FILL
** *SEE ATTACHED SPECIAL NOTE*

Rec Sheet Revised on 7/12/19 by D. Palmore

SPECIAL NOTE

THE CONTRACTOR SHOULD TAKE EXTREME CARE WHEN COLD PLANING THE EXISTING ASPHALT OFF BRIDGE DECK, SO AS NOT TO DAMAGE THE EXISTING DECK SEALANT AND/OR EXPANSION JOINT MEMBERS (STEEL PLATES, BARS, AND/OR HEADERS).

IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY REPAIRS ON ALL DAMAGED MEMBERS TO THE SATISFACTION OF THE PROJECT ENGINEER AT NO ADDITIONAL COST.

Bridge Maintenance Recommendations

Bridge Location No.: 19 - I0024 - 13.97
Co. Route Log Mile

Bridge Number: 19I00240107

Crossing: NORTH FIRST STREET

County: Davidson
Region: 03
District: 31
Maint.Resp.: 01
Spec.Case: 0
Co.Seq: 01

Bridge Rating: GOOD

Inspection Cycle: 15

Inspection Date: 10/16/2003

Comments: REPLACE & TIGHTEN ANCHOR NUTS WHERE NEEDED.
REPAIR UNDERPASS LIGHTING.

Maintenance Recommendations:

	Maintenance Completed By / Date
	REPLACE EXPANSION JOINTS AT APPROACH SLABS "A" AND "B"
031	**CLEAN AND SEAL ~~GIRDERS~~** JOINTS
	CLEAN DRAINS SPAN #1 AND #2 LEFT SIDE
	REPAIR CAP #2 ON BOTTOM BETWEEN BEAM "D" AND "E"
	REPAIR EXPANSION JOINT MEMBRANE AT SPAN #4

COMPLETION NOTIFICATION: RETURN WITHIN 6 MONTHS OF INSPECTION DATE.

INITIAL AND DATE RECOMMENDATIONS WHEN COMPLETED.

MAINTENANCE ACTIVITIES ARE COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE PARTIALLY COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE INCOMPLETE, SCHEDULED FOR (DATE) _____

EXPLANATIONS AND COMMENTS:

CONTACT:

Bridge Maintenance Recommendations

24/07

Bridge Location No.: 19 - I0024 - 13.97
Co. Route Log Mile

Bridge Number: 19I00~~650053~~

Crossing: NORTH FIRST ST *

County: Davidson

Region: 03

District: 31

Bridge Rating: GOOD

Maint.Resp.: 01

Inspection Cycle: 14

Spec.Case: 0

Inspection Date: 9/21/2001

Co.Seq: 01

Comments: REPLACE & TIGHTEN ANCHOR NUTS WHERE NEEDED.
REPAIR UNDERPASS LIGHTING.

Maintenance Recommendations:

		Maintenance Completed By / Date
	REPLACE EXPANSION JOINTS AT APPROACH SLABS "A" AND "B"	
031	**CLEAN AND PAINT STEEL GIRDERS**	

COMPLETION NOTIFICATION: RETURN WITHIN 6 MONTHS OF INSPECTION DATE.

INITIAL AND DATE RECOMMENDATIONS WHEN COMPLETED.

MAINTENANCE ACTIVITIES ARE COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE PARTIALLY COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE INCOMPLETE, SCHEDULED FOR (DATE) _____

EXPLANATIONS AND COMMENTS:

CONTACT:

Bridge Maintenance Recommendations

Bridge Location No.: 19 - I0065 - 10.~~34~~ 50
Co. Route Log Mile

Crossing: I65 / NORTH FIRST ST *

Bridge Rating: FAIR

Inspection Cycle: 13

Inspection Date: 4/5/00

Bridge Number: 19I00650053
County: Davidson
Region: 03
District: 31
Maint.Resp.: 01
Spec.Case: 0
Co.Seq: 01

Comments: REPLACE & TIGHTEN ANCHOR NUTS WHERE NEEDED. REPAIR JOINT AT BENT #1, ALSO REPAIR UNDERPASS LIGHTING BENT #3

Level of Service:	1	Number Main Spans:	004
Owner:	01	Number Appr Spans:	0000
Appr Rdwy (xxx ft):	066	Bridge Length (xxxxxx ft)	000380
Skew:	23	Curb-to-Curb (xxx.x ft):	0710
Type of Service:	11	Out-to-Out (xxx.x ft):	1460
Main Structure Type:	402	Item 500:	02
Appr Structure Type:	000	Facility Carried By:	I65

Maintenance Recommendations:

Maintenance Completed By / Date

031	**CLEAN AND PAINT STEEL GIRDERS**

BRIDGE MAINTENANCE RECOMMENDATIONS

BRIDGE SEQ. NO. : 19I00650053 BRIDGE NO. : 19 - I0065 - 1054 - N
OVER : I65 / NORTH FIRST ST *

DATE	: 04/06/84	BRIDGE RATING	: FAIR	COUNTY	: Davidson
CO. SEQ.	: 01	INSPECTION CYCLE	: 12	MAINT DIST	: 31
SPEC. CASE	: 1	INSPECTION DATE	: 04/06/98	REGION	: 03

007	FACILITY CARRIED BY STRUCT	: I65
021	MAINTENANCE RESPONSIBILITY	: 01
022	OWNER	: 01
042	TYPE OF STRUCTURE	: 11
043	STRUCTURE TYPE, MAIN	: 402
044	STRUCTURE TYPE, APPROACH	: 000
045	SPANS, MAIN UNIT	: 004
046	SPANS, APPROACH	: 0000
049	STRUCTURE LENGTH	: 000380
032	APPROACH ROADWAY WIDTH	: 066
034	SKEW	: 23
051	BRDG RDWY WID, CRB-TO-CRB	: 0710
052	DECK WIDTH, OUT-TO-OUT	: 1460
500	HWY OF THE INVENTORY ROUTE	: 02

: MAINTENANCE & REPAIR RECOMMENDATIONS : : MAINTENANCE COMPLETED :

1 CLEAN AND SEAL JOINTS IN SPAN NO. _____ 1 BY _____ DATE _____

: COMMENTS FOR BRIDGE SEQ. NO. : 19I00650053 :

REPLACE & TIGHTEN ANCHOR NUTS WHERE NEEDED. REPAIR JOINT AT BENT #1, ALSO REPAIR UNDERPASS LIGHTING BENT #3 RIGHT.

COMPLETION NOTIFICATION : RETURN WITHIN 6 MONTHS OF INSPECTION DATE

MAINTENANCE ACTIVITIES ARE
--- COMPLETED (DATE) --------
--- PARTIALLY COMPLETE (DATE) --------
--- INCOMPLETE SCHEDULED FOR (DATE) --------

EXPLANATIONS AND COMMENTS:

TENNESSEE BRIDGE INSPECTION PROGRAM
SUMMARY OF EVALUATION

REV. 03-05-2003

BRIDGE ID NO: 19I00240107 *LOCATION NO:* 19 - I0024 - 13.97

(6A) CROSSING: I24 / NORTH FIRST ST

(505) METHOD OF ANALYSIS: LOAD FACTOR METHOD *(548) RATING BASED ON:* CONCRETE DECK

LOAD RATINGS IN TONS

INVENTORY (503) H	20	*(518B) HS*	36
OPERATING (504) H	50	*(519) HS*	90

(549) EVALUATOR: CAJ
(522) EVAL. DATE: 4/8/2004
LAST UPDATED BY: JOHNSON
(29) ADT: 102,900 *(30) ADT YR:* 2003
(100) STRAHNET ROUTE: YES
(19) DETOUR LENGTH: 2 KM
(520) VC OVER RDWY: 99.99 METERS

CONDITION RATINGS

(58) DECK RATING:	7
(59) SUPERSTRUCTURE RATING:	7
(60) SUBSTRUCTURE RATING:	6
(61) CHANNEL PROTECTION:	N
(62) CULVERT RATING:	N
(113A) NBIS SCOUR CODE:	N
(113B) TDOT SCOUR CODE:	

APPRAISAL RATINGS

(67) STRUCTURAL EVALUATION:	6
(68) DECK GEOMETRY:	9
(69) UNDER CLEARANCE:	6
(70) BRIDGE POSTING:	5
(71) WATERWAY ADEQUACY:	N
(72) APPROACH RDWY ALIGNMENT:	6

CODE VALUES

N - NOT APPLICABLE
9 - EXCELLENT CONDITION
8 - VERY GOOD CONDITION
7 - GOOD CONDITION
6 - SATISFACTORY
5 - FAIR CONDITION
4 - POOR CONDITION
3 - SERIOUS CONDITION
2 - CRITICAL CONDITION
1 - FAILURE IS IMMINENT
0 - FAILED CONDITION

OTHER RATING ITEMS

(521) OVERALL CONDITION:	G		
(513) TEXTURE COAT RATING:	F 10	*(36) TRAFFIC SAFETY FEATURES:*	1 1 1 0
(514) PAINT CONDITION RATING:	1 01 1985		
(41) WEIGHT POSTING CODE:	A	*(525) REPAIR LIST NO:*	N

COMMENTS

NO COMMENTS AT THIS TIME.

(502) SUFF. RATING:	82.8
(528) STR. DEFICIENT:	NO
(529) FUNC. OBSOLETE:	NO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 08/28/2003

Bridge Number: (Includes Item 5A) 19I002401071
Feature Intersected: I24 / NORTH FIRST ST
Evaluation Status:

County: 19
Route: I0024
Special Case: 0
County Sequence: 1
Log Mile: 13.97

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	09/21/2001 10/16/03
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
36	TRAFFIC SAFETY FEATURES	
	Br. Rail / Trans. / Appr. Rail / Terminal / SPEED LIMIT	1 / 1 / 1 / 0 / 55
41	STRC OPEN/CLOSED/POSTED (A K P)	A
58	DECK	7
59	SUPERSTRUCTURE	7
60	SUBSTRUCTURE	6
61	CHANL/CHANL PROTECTION	N
62	CULVERT AND RETAIN WALL	N
71	WATERWAY ADEQUACY	N
72	APPROACH RDWY ALIGNMENT	~~8~~ 7
521	OVERALL CONDITION	GOOD 6

L. Watts
TEAM LEADER SIGNATURE

10/16/03
REVIEW DATE

CONDITION CODING GUIDELINES
(Values for Coding Items 58, 59, 60 and 62)

- N NOT APPLICABLE
- 9 EXCELLENT CONDITION
- 8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
- 7 GOOD CONDITION - SOME MINOR PROBLEMS.
- 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
- 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
- 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
- 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
- 2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
- 1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT IT BACK IN LIGHT SERVICE.
- 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 08/28/2003

County: 19
Route: 03266
Special Case: 0
County Sequence: 1
Log Mile: 0.07

Bridge Number: (Includes Item 5A) 19I002401072
Feature Intersected: I24 / NORTH FIRST ST

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	04/11/2003 10/16/03
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	15 FT. 1 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	15 FT. 1 IN. ____ FT. ____ IN.
47	TOTAL HORIZONTAL UNDERCLEARANCE	38 FT. 9 IN. ____ FT. ____ IN.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: (H) R	15 FT. 01 IN.
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: H R	____ FT. ____ IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	____ FT. ____ IN.
521	OVERALL CONDITION	FAIR GOOD

UNDERPASS SAFETY FEATURES

515 (A) TYPE UNDERPASS BARRIER
NONE NEEDED OR NOT APPLICABLE

_____
Revised Barrier Type

(B) ADEQUACY OF BARRIER OR RAIL N

(C) ADEQUACY OF TRANSITIONS N

(D) ADEQUACY OF TERMINALS N

554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING
FT. IN.
____ FT. ____ IN.

HEIGHT POSTED AT BOTH APPROACHES? YES [ ] ~~NO [ ]~~ N/A [ ]

555 COMMENTS _____

D. Watts
TEAM LEADER SIGNATURE

10/16/03
REVIEW DATE

15'-1" → 4.60m

DT-1449

TENNESSEE BRIDGE INSPECTION PROGRAM
SUMMARY OF EVALUATION

REV. 05-22-00

I24 - 15.97

(548) RATING BASED ON: CONCRETE DECK

(505) METHOD OF ANALYSIS:

INVENTORY 503 H 20 Tons 518B HS 36 Tons

OPERATING 504 H 50 Tons 519 HS 90 Tons

Bridge No.: 19-I65-10.50-

(549) Evaluator: Alan Johnson

(522) Eval. Date: 09 / 12 /2000

(29) ADT: 106,370 (19 99) Yr(30)

(100) Strahnet Route Yes(X) No( )

(19) Detour 2 km

(53) Vert. Clearance Over Deck
_____ m(XX.XX) (X) NA

CONDITION RATING (Structural)

		Culverts	
58	Deck	N	7
59	Superstructure	N	6
60	Substructure	N	6
61	Chl & Chl Protection		N
62	Culv & Ret Walls		N
113A	Scour Condition		N
113B	Scour Condition		

APPRAISAL RATING (Relation to System)

		Culverts	
67	Structural Evaluation		6
68	Deck Geometry		9
69	Under Clearance	N	6
70	Bridge Posting		5
71	Waterway Adequacy		N
72	Approach Rdwy Alignment		8

Overall Condition (521): G (F) P C

Texture Coat (513) | 2 | 1 | 0 |

Paint (514 A, B, & C) | 1 | 0 | 1 | 1 | 9 | 8 | 5 |

Traffic Safety Features (36): | 1 | 1 | 1 | 1 | 1 | 1 |

Repair List No. (525): |

Comments and Recommendations: REVIEWED - CRT - 03-10-2000

* * Article 5.1.2 of Maint. Man. For Conc. Br. with unknown reinf.

* * * Des. Std. or Des. Plans For H15 or HS20 Loading.

COMMENTARY (Condition)

N NOT APPLICABLE
9 EXCELLENT CONDITION
8 VERY GOOD CONDITION - no problems noted
7 GOOD CONDITION - some minor problems
6 SATISFACTORY CONDITION - structural elements show some minor deterioration
5 FAIR CONDITION - all primary structural elements are sound, but may have minor section loss, deterioration, spalling, or scour.
4 POOR CONDITION - advanced section loss, deterioration, spalling, or scour
3 SERIOUS CONDITION - loss of section, deterioration, spalling, or scour have affected primary structural components - local failures are possible - fatigue cracks in steel or shear cracks in concrete may be present
2 CRITICAL CONDITION - advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored, it may be necessary to close the bridge until corrective action is taken.
1 "IMMINENT" FAILURE CONDITION - Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic, but corrective action may put it back in light service.
0 FAILED CODITION - Out of service, beyond corrective action.

COMMENTARY (Appraisal)

N - Not Applicable
9 - Superior to present desirable criteria
8 - Equal to present desirable criteria 7 - Better than present minimum criteria
6 - Equal to present minimum criteria
5 - Somewhat better than minimum adequacy to tolerate being left in place as is
4 - Meets minimum tolerable limits to be left in place as is
3 - Basically intolerable, requiring high priority of corrective action
2 - Basically intolerable, requiring high priority of replacement.
1 - This value of rating code not used.
0 - Bridge closed.

GOOD ------ 7, 8, & 9
FAIR ------ 5 & 6
POOR ------ 3 & 4
CRITICAL -- 0, 1, & 2

SUFFICIENCY RATING : _____.

DATE OF SUFF. RATING : ____/____/____.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 06/15/2000

County:	19
Route:	I0024
Special Case:	0
County Sequence:	01
Log Mile:	13.97

Bridge Number: (Includes Item 5A) 19I002401071

Feature Intersected: I24 / NORTH FIRST ST

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	04/05/2000 9/21/01
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
36	TRAFFIC SAFETY FEATURES Br. Rail / Trans. / Appr. Rail / Appr. Rail Ends	1 1 1 1 --- --- --- 0
41	STRC OPEN/CLOSED/POSTED A K P	A ---
58	DECK	7 ---
59	SUPERSTRUCTURE	6 7
60	SUBSTRUCTURE	6 ---
61	CHANL/CHANL PROTECTION	N ---
62	CULVERT AND RETAIN WALL	N ---
71	WATERWAY ADEQUACY	N ---
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	8 ---
521	OVERALL CONDITION (Circle One) GOOD FAIR POOR CRITICAL	

Paul Heagle Clk 9/21/01

TEAM LEADER SIGNATURE REVIEW DATE

CONDITION CODING GUIDELINES
(Values for Coding Items 58, 59, 60 and 62)

- N NOT APPLICABLE
- 9 EXCELLENT CONDITION
- 8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
- 7 GOOD CONDITION - SOME MINOR PROBLEMS.
- 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
- 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
- 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
- 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOURSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
- 2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
- 1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT BACK IN LIGHT SERVICE.
- 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.

Revised 06/15/2000

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

County: 19
Route: 03266
Special Case: 0
County Sequence: 01
Log Mile: 0.07

Bridge Number: (Includes Item 5A) 19I002401072
Feature Intersected: I24 / NORTH FIRST ST

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	04/05/2000
		9/21/01
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	15 FT. 1 IN.
		____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	15 FT. 1 IN.
		____ FT. ____ IN.
47	TOTAL HORIZONTAL UNDERCLEARANCE	38 FT. 8 IN.
		____ FT. ____ IN.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: (H) R	15 FT. 1 IN.
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: (H) R	10 FT. 2 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	4 FT. 8 IN.

UNDERPASS SAFETY FEATURES

515 (A) TYPE UNDERPASS BARRIER
None Needed or N/A

Revised Barrier Type

(B) ADEQUACY OF BARRIER OR RAIL N

(C) ADEQUACY OF TRANSITIONS N

(D) ADEQUACY OF TERMINALS N

554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING
99 FT. 99 IN.
____ FT. ____ IN.

521 OVERALL CONDITION (Circle One)
(GOOD) FAIR POOR CRITICAL

HEIGHT POSTED AT BOTH APPROACHES? YES [ ] NO [X] N/A [ ]

555 COMMENTS _____

Kenneth Hogan Clk
TEAM LEADER SIGNATURE

9/21/01
REVIEW DATE

CONCRETE DECK RATINGS
---- LOAD FACTOR ANALYSIS ----

BRIDGE NUMBER..: 19 - I65 - 10.54

NAME : ALAN JOHNSON DATE : 12-09-1999

SPAN NUMBER..: 2 OR 3 BAY NUMBER..: TYP.

COMMENTS..: RATE THE CENTER WIDENED SECTION OF THE DECK.

INPUT DATA

CLEAR SPAN LENGTH	(FEET)..	7
SLAB THICKNESS	(INCH)..	8.5
CLEAR DISTANCE - BOTTOM STEEL TO BOTTOM DECK	(INCH)..	1
NEW BAR SIZE NUMBER OF STEEL BAR	(WHOLE NUMBER)..	6
IS THE BAR ROUND ?	(Y-N)..	Y
SPACING BETWEEN THE STEEL BARS	(INCH)..	9
YIELD STRENGTH - STEEL	(KSI)..	60
PERCENT OF STEEL EFFECTIVE FOR MOMENT.	(WHOLE NUMBER)..	100
YIELD STRENGTH - CONCRETE	(KSI)..	3
SUPPORTING BEAM FLANGE OR WALL THICKNESS	(IN)..	18
DECK CONT. OVER 3 OR MORE BEAMS OR SUPPORTS ?	(Y-N)..	Y
IS THE DECK MONOLITHIC ?	(Y-N)..	N
IS THE DECK SUPPORTED BY LONGITUDINAL BEAMS ?	(Y-N)..	Y

OUTPUT DATA FOR LOAD FACTOR ANALYSIS

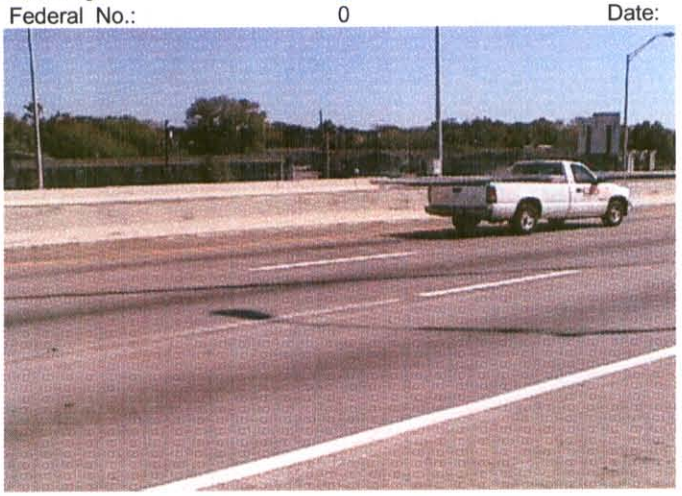
COMPUTED VALUES			NON-FACTORED MOMENTS	
A	(INCH) =	1.155		
SPAN LENGTH	(FEET) =	7.75		
MOM-CAP	(K-FT) =	17.36	MDL =	.64
MOM-AVAIL-LL+I	(K-FT) =	16.53	H-LL+I =	3.8
W-DL	(K/FT) =	.106	HS-LL+I =	5.07

H & HS RATINGS - (TONS)

H @ INV	H @ OPER	HS @ INV	HS @ OPER
30	50	54	90

Bridge No.: 00019 — I0024 — 13.97
Crossing:: 0
Federal No.: 0 Date: October 16, 2003

PIC1



VIEW ACROSS DECK

Bridge No.: 19 — I0024 — 13.97
Crossing:: 0
Federal N 0 Date: October 16, 2003

PIC2

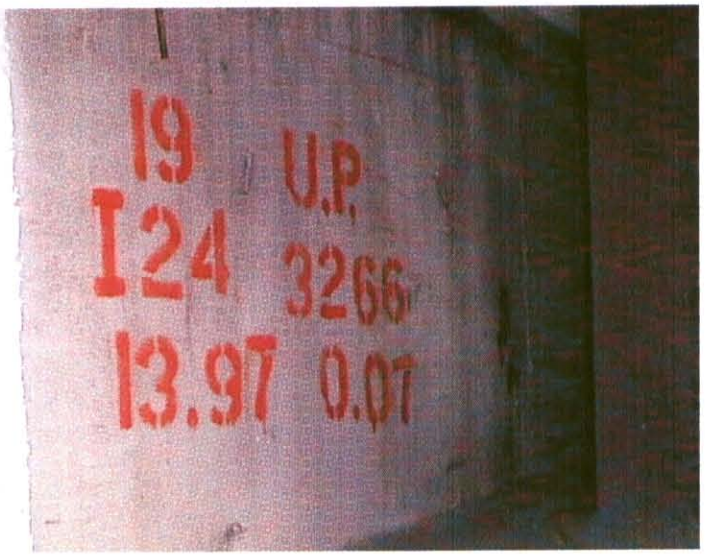
ELEVATION RIGHT SIDE

PIC3

ELEVATION RIGHT SIDE

Bridge No.: 19 — I0024 — 13.97
Crossing:: 0
Federal No. 0 Date: October 16, 2003

PIC4



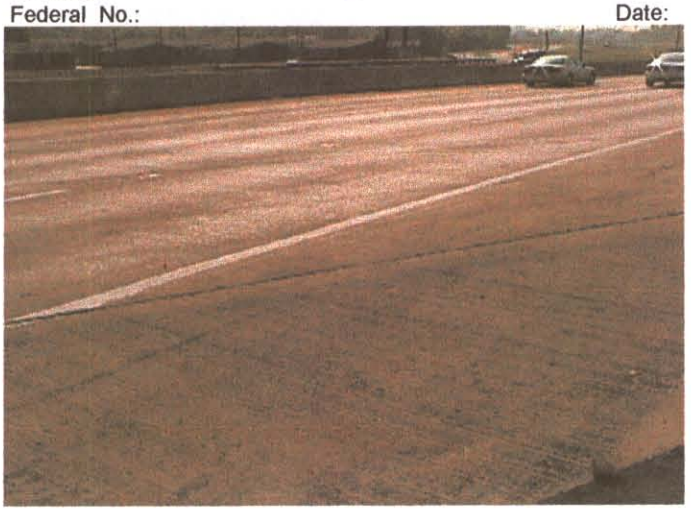
BRIDGE NO. AT ABUTMENT # 1

PIC5

BEARING "O" ABUTMENT #2

Bridge No.: 00019 — I24 — 13.97
Crossing:: 0
Federal No.: Date: September 21, 2001

PIC1



VIEW ACROSS DECK

Bridge No.: 19 — I24 — 13.97
Crossing:: 0
Federal No 0 Date: September 21, 2001

PIC2

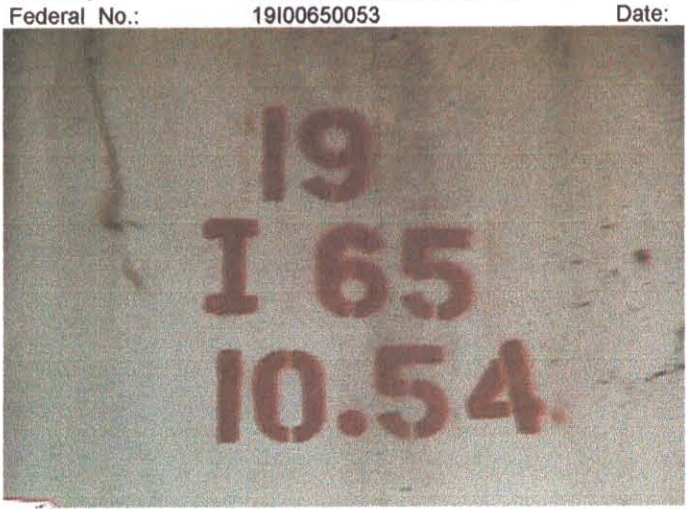
BRIDGE NO. AT ABUTMENT # 1

PIC3

ELEVATION RT VIEW

Bridge No.: 19 — I0065 — 1054
Crossing:: I65 / NORTH FIRST ST *
Federal No.: 19I00650053 Date: April 5, 2000

PIC1



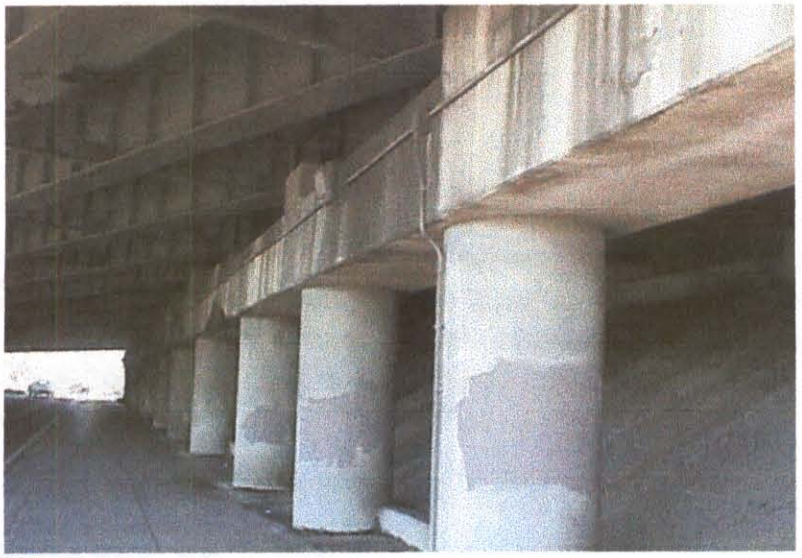
BRIDGE NO. AT ABUTMENT # 1

Bridge No.: 19 — I0065 — 1054
Crossing:: I65 / NORTH FIRST ST *
Federal No 19I00650053 Date: April 5, 2000

PIC2

ABUTMENT TYPICAL

PIC3



BENT TYPICAL

Bridge No.: 19 — I0065 — 1054
Crossing:: I65 / NORTH FIRST ST *
Federal No.: 19I00650053 Date: April 5, 2000

PIC4

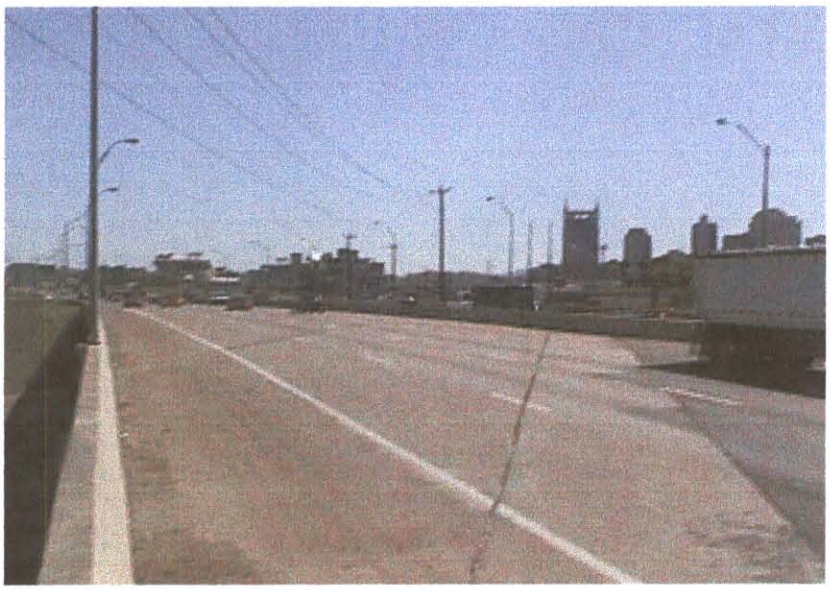
BOTTOM OF DECK

PIC5

BREAKOUT WITH EXPOSED REBAR BOTTOM DECK BETWEEN BEAMS "K AND L" SPA

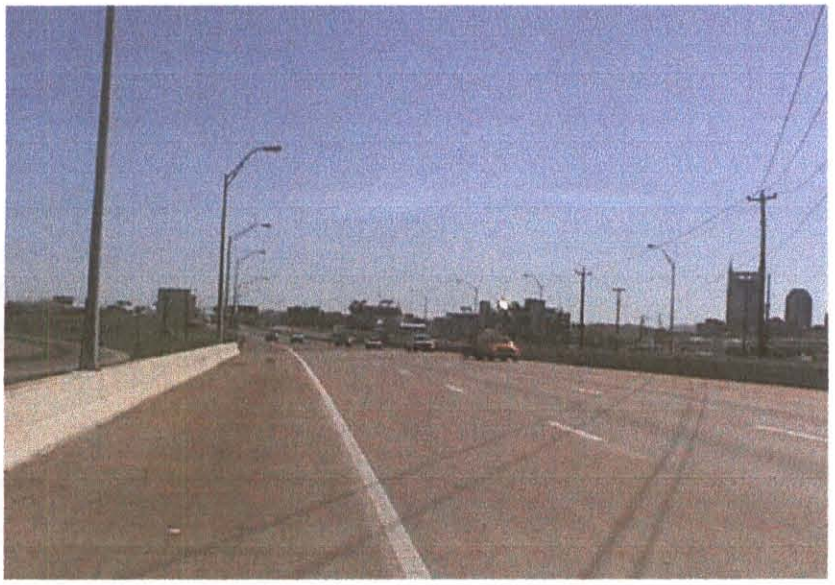
Bridge No.: 19 — I0065 — 1054
Crossing:: I65 / NORTH FIRST ST *
Federal No.: 19I00650053 Date: April 5, 2000

PIC6



VIEW ACROSS DECK

PIC7



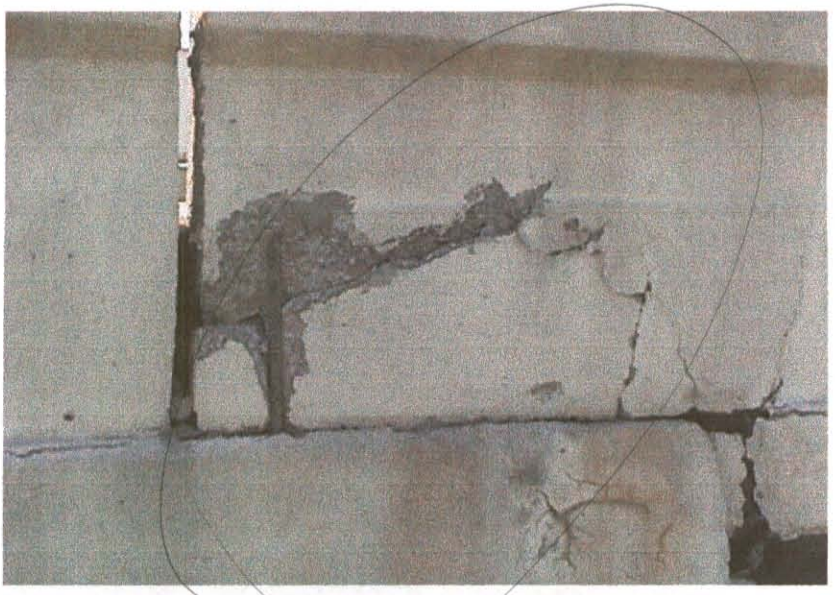
APPROACH # 1

Bridge No.: 19 — I0065 — 1054
Crossing:: I65 / NORTH FIRST ST *
Federal No.: 19I00650053 Date: April 5, 2000

PIC8

APPROACH # 2

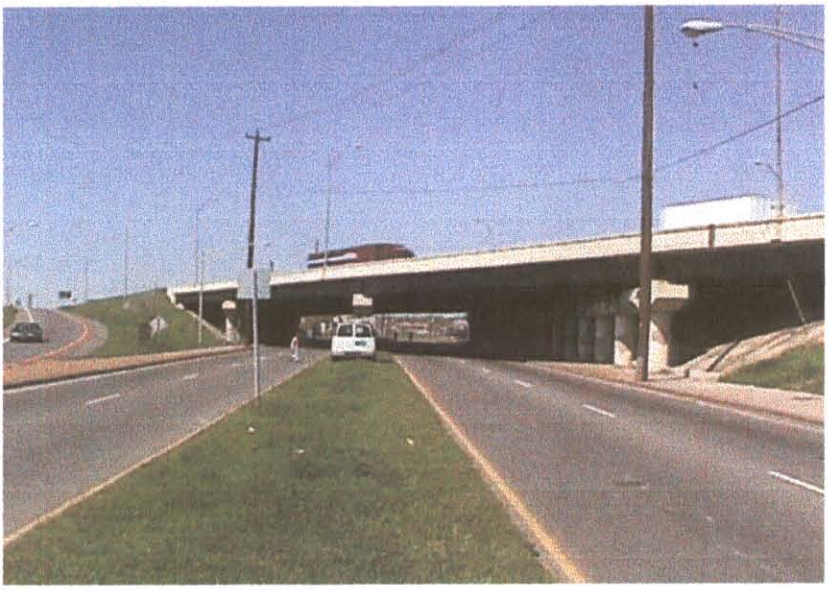
PIC9



BREAKOUT WITH EXPOSED REBAR AT PARAPET RIGHT SIDE ABUTMENT #1

Bridge No.: 19 — I0065 — 1054
Crossing:: I65 / NORTH FIRST ST *
Federal No.: 19I00650053 Date: April 5, 2000

PIC10



LEFT SIDE VIEW

ROUTINE BRIDGE INSPECTION REPORT

Page No.___

Form BIR 3.0C
(Rev. 9-22-98)
DT-1537

Field Report No. 15 Date 10.16.03
Previous Report No. 14 Date 9/21/2001
Plans: DESIGN

Bridge No. 19I00650053 (240107) Eleven Digit No.

Bridge Location No. 19 - I0024 - 13.97
Co. Route Log Mile

I24 Road Name over NORTH FIRST ST * Crossing

Indepth Insp. Req'd: NO
(If yes itemize limits under comments

Structure Type WPG

FRACTURE CRITICAL: NO

FEATURE CHANGES:

Wearing Surface NO Type CONCRETE Depth _____ (in.)
Bridge Rail NO Describe changes:
Approach Rail NO

CLEARANCE CHANGES: NO (If yes make changes below)

Vertical Clearance over deck		(ft.-in.)
Vertical Under Clearance	15'1"	(ft.-in.)
Horizontal Under Clearance		(*.* ft.)
Deck Width Curb/Curb	71'	(*.* ft.)
Deck Width Rail/Rail		(*.* ft.)
Sidewalk Width Rt.		Lt.

INSPECTORS

~~HUNTER~~	~~DONNIE~~ →
DANIEL	WATTS
CRUTCHER	CLARK
~~WALLER~~	CARVER
	LONE

Condition: **GOOD** (If change describe in comments)

		Comments
Approaches	F	Moo Bo's, A/C Patches & Potholes
Deck Condition (Item 58)	G	
Superstructure (Item 59)	G	
a. Beams	G	
b. Bearings	F	Hwy Cover @ Abut #1 & #2
c. Diaphragms	G	
Substructure (Item 60)	G	
a. Caps/Bridge Seats	F	Bent #2 Longit Crack @ D & E 15'Lg x 3/4" open
b. Columns/Piles	G	
c. Footings	N/V	
d. Wing W./Breast W.	G	Hwy Water Stains
Scour/Erosion	G	
Channel (Item 61)		

UNDERWATER INSPECTION

To Be Performed By: NONE REQUIRED

Date Underwater Insp. _____

BRIDGE is: OPEN

Weight Limit Posted NO

Gross..... _____ Tons
2 Axle..... _____ Tons
3 or more Axles.. _____ Tons

COMMENTS:

Supervising Bridge Inspector: J. Watts

BRIDGE RATING: **GOOD**

SUMMARY
19-I24-13.97
10/16/03

I24/North First Street
4 Span/Cont. S.I.B.

This bridge was inspected and found to be in good condition. Approach alignment is good. Approach roadway is fair with A/C patches and breakouts. Bridge railing and approach rail are standard type and in good condition. End terminals are substandard.

Concrete wearing surface is good. Drains are poor in span #1 and #2 left side with 100% silt build up. Expansion joints are good. However membrane at joint #2 span#4 has light –moderate ripped areas. Lighting standards are fair with light to moderate cracks on base at bolt connection. Joint leakage shows moderate to heavy stains on the abutments and bent caps.

Bottom deck is good with small breakouts with exposed steel up to 2" deep and 5'long in spans #2, #3, and #4 around previously patched areas at bents. There were also random transverse hair cracks with leaching. Other superstructure elements are in good condition. Bearing devices are good.

The abutments and wings are good. Bents are fair 15'lg x ¾"open longit. crack on #2 bottom at "D" and "E".Columns are good with vertical high steel cracks. Underpass pier protection is not in place. The minimum distance to the nearest bent is 4.7'.

Jim Watts

ROUTINE BRIDGE INSPECTION REPORT

Page No.___

Form BIR 3.0C
(Rev. 9-22-98)
DT-1537

Field Report No. 14 Date 9-21-01
Previous Report No. 13 Date 4/5/00
Plans: DESIGN

Bridge No. ~~19100650053~~ 191002401O7
Eleven Digit No.

Bridge Location No. 19 - ~~10065~~ 10024 - ~~10.54~~ 13.97
Co. Route Log Mile

~~165~~ I24 over ~~165~~/NORTH FIRST ST *
Road Name Crossing

Indepth Insp. Req'd: NO
(If yes itemize limits under comment

Structure Type WPG

FRACTURE CRITICAL: NO

FEATURE CHANGES:

Wearing Surface NO Type CONCRETE Depth _____ (in.)
Bridge Rail \ Describe changes:
Approach Rail \

CLEARANCE CHANGES: (If yes make changes below)

Vertical Clearance over deck		(ft.-in.)
Vertical Under Clearance	15'1"	(ft.-in.)
Horizontal Under Clearance		(*.* ft.)
Deck Width Curb/Curb	71'	(*.* ft.)
Deck Width Rail/Rail		(*.* ft.)
Sidewalk Width Rt.		Lt.

INSPECTORS

WATTS
HEGGIE CLARK
LOVE
~~HOWEA~~

Condition: ~~FAIR~~ GOOD (If change describe in comments)

		Comments
Approaches	G	
Deck Condition (Item 58)	G	
Superstructure (Item 59)	G	
a. Beams	G	
b. Bearings	F	
c. Diaphragms	G	
Substructure (Item 60)	G	
a. Caps/Bridge Seats	G	
b. Columns/Piles	G	
c. Footings	N/V	
d. Wing W./Breast W.	G	
Scour/Erosion	/	
Channel (Item 61)	/	

UNDERWATER INSPECTION

To Be Performed By: NONE REQUIRED
Date Underwater Insp. _____
BRIDGE is: OPEN

Weight Limit Posted NO
Gross..... _____ Tons
2 Axle..... _____ Tons
3 or more Axles.. _____ Tons

COMMENTS:

Supervising Bridge Inspector: Heggie Clark BRIDGE RATING: ~~FAIR~~ GOOD

SUMMARY
19-I24-13.97
9/21/01

I24/North First Street
4 Span/Cont. S.I.B.

This bridge was inspected and found to be in **good** condition. Approach alignment and approach areas are good. Bridge railing and approach rail are standard type and in good condition.

Concrete wearing surface is good, along with drains and expansion joints. Lighting standards are fair with light to moderate cracks on base at bolt connection. Joint leakage shows moderate to heavy stains on the abutments and bent caps.

Bottom deck is good with small breakouts with exposed steel up to 2" deep and 5' long in spans #2, #3, and #4 around previously patched areas at bents. There were also random transverse hair cracks with leaching. Other superstructure elements are in good condition. Bearing devices are good.

The abutments and wings are good. Bents are good with a 1" deep beakout in the cap and 1/8" open longitudinal cracks. Columns are good with vertical high steel cracks. Underpass pier protection is not in place. The minimum distance to the nearest bent is 4.7'.

Karen Heggie Clark

BRIDGE INSPECTION REPORT

FORM BIR 3.0
Rev. 09/24/98
DT-0069

FIELD REPORT NO. 5 DATE 4-5-2000
REVIOUS REPORT NO. 12 DATE 4-6-98
PLANS ---- YES [✓] NO [ ]

10,150

BRIDGE NO. 19I0265000[illegible] BRIDGE LOC. NO. 19 - I65 - 10.54
ELEVEN DIGIT NO. CO. ROUTE LOG MILE

I-65 OVER
ROAD NAME FEATURE INTERSECTED STRUCTURE NAME (IF NAMED)

YEAR CONSTRUCTED 61 COUNTY MAINTENANCE DISTRICT NO.
(ESTIMATED OR ACTUAL)
[ ] [✓]

YEAR WIDENED 86 YEAR REHABILITATED 86
ESTIMATED OR ACTUAL ESTIMATED OR ACTUAL
[ ] [✓] [ ] [ ]

FEATURES

WEARING SURFACE-- CONCRETE [✓] TIMBER [ ] ASPHALT [ ] (DEPTH=_____)
FLARED WIDTH ---------- YES [ ] NO [✓]
NAVIGATIONAL CONTROL-- YES [ ] NO [✓]
MEDIAN WIDTH ---------- OPEN [ ] NONE [✓] CLOSED [ ]

BRIDGE SKEW 22° LT [ ] RT [✓]

STRUCTURE TYPE Girder Main Span NO. SPANS 4 Main Span

STRUCTURE TYPE _____ Approach Spans NO. SPANS _____ Approach Spans

MAXIMUM SPAN LENGTH 113.2 TOTAL LENGTH 379.4

INSPECTORS

1. Hunter
2. Daniel
3. Crutcher
4. Waller
5. Donnie (End Trainee)
6. _____
7. _____
8. _____
9. _____

WIDTHS

DECK OUT-TO-OUT 146
ROADWAY CURB/CURB 71 Lane
SIDEWALK ---- RT ---- LT
*APPROACH ROADWAY 48
APPR. SHLD. 12 RT 12 LT
*DOES NOT INCLUDE SHOULDER

CLEARANCES

MIN. VERTICAL OVER DECK _____
MIN. VERTICAL UNDER CL 15' 1"
MIN. LATERAL UNDER CL 10.1 RT
4.7 LT

(<25')
NBIS BRIDGE LENGTH over 25'
(ft) (in)

UNDERWATER INSPECTION

INSPECTION PERFORMED BY:
DOT FIELD TEAM [ ] DATE _____
CONTRACT DIVERS [ ] DATE _____
NONE REQUIRED [✓]

FRACTURE CRITICAL DETAILS: YES [ ] NO [✓]
IF YES, INCLUDE BIR 3.9

CHANGE IN STRUCTURAL CONDITION YES [ ] NO [✓]
MAJOR REPAIRS MADE YES [ ] NO [✓]

COMMENTS: _____

Albert Wayne Hunter
SUPERVISING BRIDGE INSPECTOR

BRIDGE RATING [ ] [X] [ ] [ ]
GOOD FAIR POOR CRITICAL

FORM BIR 3.1
Rev. 09/24/98
DT-0080

BRIDGE LOC. NO. 12 - [illegible] - [illegible]
CO. ROUTE L.M.

DATE: 4-5-2000

PERFORMANCE EVALUATION

Time of day inspected 2:00 Weather conditions SUNNY 65°

Vehicles observed All types

LIVE LOAD BEHAVIOR	*YES*	*NO*	*COMMENTS*
Substructure			
Horiz. & Vert. Defl.	[ ]	[X]	
Vibration	[ ]	[X]	
Superstructure			
Horiz. & Vert. Defl.	[X]	[ ]	
Vibration	[X]	[ ]	

APPROACH

Alignment	(G)	F	P	C	
Slab	(G)	F	P	C	
Joints	(G)	F	P	C	
Pavement	(G)	F	P	C	
Embankment	(G)	F	P	C	
Drains	G	F	P	C	NA

TRAFFIC SAFETY FEATURES

					STANDARD	SUB-STANDARD	
Bridgerailing	(G)	F	P	C	[X]	[ ]	
Transitions	(G)	F	P	C	[X]	[ ]	
Guardrail	(G)	F	P	C	[X]	[ ]	
Guardrail Terminal	(G)	F	P	C	[X]	[ ]	

SIGNING

	YES	NO	NEEDED	
Paddleboard	[ ]	[ ]	[ ]	WEIGHT LIMIT POSTED YES [ ] NO [ ]
Vertical Clearance (< 14')	[ ]	[ ]	[ ]	
Narrow [ ] One Lane Bridge [ ]	[ ]	[ ]	[ ]	GROSS _____ TONS 2 AXLE _____ TONS 3 OR MORE AXLES _____ TONS

Other Signs or Plaques —

Comments Regarding Any Problems With Signing —

Other Recommendations —

FORM BIR 3.2
Rev. 09/24/98
DT-0081

BRIDGE LOC. NO. 19 - 161 - 10.44
CO. ROUTE L.M.

DATE: 4-5-2000

DECK

					COMMENTS
WEARING SURFACE	(G)	F	P	C	
DECK - STRUCTURAL CONDITION	(G)	F	P	C	H.L. CRACK RANDOM IN EFF.
CURBS	G	F	P	C	NA
MEDIAN	G	F	P	C	NA
SIDEWALKS	G	F	P	C	NA
PARAPET	(G)	F	P	C	
RAILING	(G)	F	P	C	
PAINT	G	F	P	C	NA
DRAINS	(G)	F	P	C	
LIGHTING STD'S	(G)	F	P	C	
UTILITIES	G	F	P	C	NA
JOINT LEAKAGE	G	(F)	P	C	mod staining
EXPANSION JOINTS	(G)	F	P	C	

SUPERSTRUCTURE

					COMMENTS
BEARING DEVICES	G	(F)	P	C	light corr. & missing nuts
GIRDERS OR BEAMS	(G)	F	P	C	light corr & flaking
FLOOR BEAMS	G	F	P	C	NA
STRINGERS	G	F	P	C	NA
DIAPHRAGMS	(G)	F	P	C	
BRACING	G	F	P	C	NA
TRUSSES - GENERAL	G	F	P	C	
- PORTALS	G	F	P	C	
- BRACING	G	F	P	C	
PAINT	G	(F)	P	C	mod corr light flaking
ALIGNMENT OF MEMBERS	(G)	F	P	C	

TEXTURE COAT

CONDITION RATING	(G)	F	P	C
OVERALL APPEARANCE	(G)	F	P	C
STAINING	(G)	F	P	C
SCALING	(G)	F	P	C
FADING	(G)	F	P	C

NEEDS SPOT PAINTING? YES [ ] NO [X]
NEEDS REPAINTING? YES [ ] NO [X]

COMMENTS: _____

RECOMMENDATIONS _____

FORM BIR 3.3
Rev. 09/24/98
DT-0082

BRIDGE LOC. NO. 19 - 165 - 10.54
CO. ROUTE L.M.

DATE: 4-5-2000

SUBSTRUCTURE

ABUTMENTS

					COMMENTS
CAPS	(G)	F	P	C	
BREASTWALL	G	F	P	C	NA
WINGS	(G)	F	P	C	
BACKWALL	(G)	F	P	C	
PLUMB	(G)	F	P	C	
FOOTING	G	F	P	C	NV
PILES	G	F	P	C	NV
EMBANKMENT	(G)	F	P	C	
BEARING SURFACE	(G)	F	P	C	
SLOPE PAVING	(G)	F	P	C	

PIERS

CAPS	G	F	P	C	
COLUMNS	G	F	P	C	
PLUMB	G	F	P	C	
FOOTINGS	G	F	P	C	
PILES	G	F	P	C	
BEARING SURFACE	G	F	P	C	

BENTS

CAPS	G	(F)	P	C	½ open crack
COLUMNS	(G)	F	P	C	
PLUMB	(G)	F	P	C	
FOOTINGS	G	F	P	C	NV
PILES	G	F	P	C	NV
BEARING SURFACE	(G)	F	P	C	

SCOUR CONDITION NONE (✓)

RECOMMENDATIONS:

CURRENT FIELD REPORT NO. 13 DATE 4-5-20a
PREVIOUS FIELD REPORT NO. 12 DATE 4-6-92

FORM BIR 3.0A
Rev. 6-9-92
DT-1443

INSPECTION REPORT FOR UNDERPASS ROUTE

BRIDGE NO. 19I0045003S3 (ELEVEN DIGIT NUMBER)

UNDERPASS LOC. NO. 19 (CO.) - 3266 (RTE.) - 0.07 (L.M.)

___ (CO.) - I-65 (RTE.) - ___ (L.M.) OVER ___ (CO.) - ___ (RTE.) - ___ (L.M.)

STRUCTURE NAME (IF NAMED)

COUNTY Lauderdale

YEAR CONSTRUCTED 61 YEAR WIDENED 82 YEAR REHABILITATED ___
ESTIMATED [ ] ACTUAL [✓]

GEOMETRIC FEATURES UNDER BRIDGE

DIVIDED HIGHWAY - - - - LEFT RDWY [✓] RIGHT RDWY [ ] N.A. [ ]
TYPE OF WEARING SURFACE - - - - CONCRETE [ ] ASPHALT [✓] GRAVEL [ ]
WIDTH OF APPROACH TRAVELED ROADWAY 24 FT. (DOES NOT INCLUDE SHOULDERS)
WIDTH OF MEDIAN IF DIVIDED HIGHWAY 12 FT.
APPROACH SHOULDER WIDTH 2 FT. (RT.) 0 FT. (LT.)
*HORIZONTAL CLEARANCE UNDER BRIDGE 32 FT. 11 IN.
*DISTANCE BETWEEN PIER PROTECTION GUARDRAIL AND SUBSTRUCTURE — FT. (RT.) — FT. (LT.)
*WIDTH OF SIDEWALK UNDER BRIDGE 2 FT. (RT.) — FT. (LT.)
*MINIMUM VERTICAL CLEARANCE 14 FT. 3 IN.

*SHOW ON SKETCH

TRAFFIC SAFETY FEATURES FOR UNDERPASS ROUTE		STANDARD	SUB-STANDARD	
PIER PROTECTION RAILING OR PARAPET	G F P C	[ ]	[ ]	NON EXIST [ ]
APPROACH GUARDRAIL TRANSITIONS	G F P C	[ ]	[ ]	NON EXIST [ ]
APPROACH GUARDRAIL	G F P C	[ ]	[ ]	NON EXIST [ ]
APPROACH GUARDRAIL TERMINAL	G F P C	[ ]	[ ]	NON EXIST [ ]

SIGNING FOR UNDERPASS ROUTE			
PADDLEBOARD	YES [ ]	NO [ ]	NEEDED [ ]
VERTICAL CLEARANCE (< 14'6")	YES [ ]	NO [ ]	NEEDED [ ]
NARROW PASSAGE	YES [ ]	NO [ ]	NEEDED [ ]
ONE LANE PASSAGE	YES [ ]	NO [ ]	NEEDED [ ]
CURVE	YES [ ]	NO [ ]	NEEDED [ ]
SPEED LIMIT	YES [ ]	NO [ ]	NEEDED [ ]

INSPECTORS

1. Hunter
2. Daniel
3. Crutcher
4. Waller
5. Donnie (E. Frames)
6. ___

FORM BIR 3.0A (CONTINUED)
Rev. 6-9-92
DT-1443

UNDERPASS LOC. NO. 19 (CO.) - 32Ala (RTE.) - 0.07 (L.M.)

OTHER SIGNS OR PLAQUES _____

COMMENTS REGARDING ANY PROBLEM WITH SIGNING _____

BRIDGE FEATURES

BRIDGE SKEW 23° R
STRUCTURE TYPE CSPG (MAIN SPAN) NO. SPANS 4 (MAIN TYPE)
STRUCTURE TYPE _____ (APPROACH SPAN) NO. SPANS _____ (APPROACH TYPE)
MAXIMUM SPAN LENGTH 113.8 FT. TOTAL LENGTH 379.4 FT.
WIDTH OF BRIDGE OUT-TO-OUT 44' FT. (RT. < TO L OF BRIDGE)
WIDTH OF BRIDGE ALONG SKEW _____ FT. (IF UNABLE TO MEASURE AT RT. ∢ TO L OF BRIDGE)
NUMBER OF LANES/TRACKS ON BRIDGE 8

BRIDGE CONDITION G (F) P C

DOES POTENTIAL EXIST FOR ELEMENTS FROM BRIDGE FALLING ON ROADWAY BENEATH? YES [ ] NO [X]

DOES POTENTIAL EXIST BECAUSE OF DETERIORATED CONDITION FOR FAILURE OF MAJOR MEMBERS? YES [ ] NO [X]

COMMENT ON ANY CONDITIONS OF BRIDGE THAT WOULD EFFECT ROADWAY BENEATH _____

NOTE: IF UNDERPASS ROUTE IS DIVIDED HIGHWAY, USE TWO (2) OF THESE FORMS, ONE FOR EACH ROADWAY.

MINIMUM PICTURES REQUIRED

1. ELEVATION VIEW OF BRIDGE ON BOTH SIDES SHOWING UNDERPASS
2. VIEW SHOWING BOTH APPROACHES TO BRIDGE
3. VIEW SHOWING SAFETY FEATURES
4. VIEW SHOWING ANY PROBLEMS

CURRENT FIELD REPORT NO. 13 DATE 4-5-2000
PREVIOUS FIELD REPORT NO. 12 DATE 4-6-98

FORM BIR 3.0A
Rev. 6-9-92
DT-1443

INSPECTION REPORT FOR UNDERPASS ROUTE

BRIDGE NO. 19I0060025 (ELEVEN DIGIT NUMBER) UNDERPASS LOC. NO. 19 - 3266 - 0.71
(CO. - RTE. - L.M.)

- I 65 - OVER North 12th St
(CO. - RTE. - L.M. OVER CO. - RTE. - L.M.)

STRUCTURE NAME (IF NAMED)

COUNTY Davidson

YEAR CONSTRUCTED 61 YEAR WIDENED 78 YEAR REHABILITATED
ESTIMATED [ ] ACTUAL [✓]

GEOMETRIC FEATURES UNDER BRIDGE

DIVIDED HIGHWAY - - - - LEFT RDWY [ ] RIGHT RDWY [✓] N.A. [ ]
TYPE OF WEARING SURFACE - - - - CONCRETE [ ] ASPHALT [✓] GRAVEL [ ]
WIDTH OF APPROACH TRAVELED ROADWAY 24 FT. (DOES NOT INCLUDE SHOULDERS)
WIDTH OF MEDIAN IF DIVIDED HIGHWAY 12 FT.
APPROACH SHOULDER WIDTH 2 FT. (RT.) 0 FT. (LT.)
*HORIZONTAL CLEARANCE UNDER BRIDGE 32 FT. IN.
*DISTANCE BETWEEN PIER PROTECTION GUARDRAIL AND SUBSTRUCTURE — FT. (RT.) — FT. (LT.)
*WIDTH OF SIDEWALK UNDER BRIDGE 15 FT. (RT.) 0 FT. (LT.)
*MINIMUM VERTICAL CLEARANCE 15 FT. 1 IN.

*SHOW ON SKETCH

TRAFFIC SAFETY FEATURES FOR UNDERPASS ROUTE		STANDARD	SUB-STANDARD	
PIER PROTECTION RAILING OR PARAPET	G F P C	[ ]	[ ]	NON EXIST [✓]
APPROACH GUARDRAIL TRANSITIONS	G F P C	[ ]	[ ]	NON EXIST [✓]
APPROACH GUARDRAIL	G F P C	[ ]	[ ]	NON EXIST [✓]
APPROACH GUARDRAIL TERMINAL	G F P C	[ ]	[ ]	NON EXIST [✓]

SIGNING FOR UNDERPASS ROUTE

PADDLEBOARD	YES [ ]	NO [✓]	NEEDED [ ]
VERTICAL CLEARANCE (< 14'6")	YES [ ]	NO [✓]	NEEDED [ ]
NARROW PASSAGE	YES [ ]	NO [✓]	NEEDED [ ]
ONE LANE PASSAGE	YES [ ]	NO [✓]	NEEDED [ ]
CURVE	YES [ ]	NO [✓]	NEEDED [ ]
SPEED LIMIT	YES [ ]	NO [✓]	NEEDED [ ]

INSPECTORS

1. Hunter
2. Daniel
3. Crutcher
4. Waller
5. Nonie (TRAINEE)
6.

FORM BIR 3.0A (CONTINUED)
Rev. 6-9-92
DT-1443

UNDERPASS LOC. NO. 19 (CO.) - 3266 (RTE.) - 0.07 (L.M.) KK

OTHER SIGNS OR PLAQUES —

COMMENTS REGARDING ANY PROBLEM WITH SIGNING —

BRIDGE FEATURES

BRIDGE SKEW 30° R
STRUCTURE TYPE CIP MAIN SPAN — NO. SPANS 4 MAIN TYPE
STRUCTURE TYPE _____ APPROACH SPAN — NO. SPANS _____ APPROACH TYPE
MAXIMUM SPAN LENGTH 113.8 FT. — TOTAL LENGTH 379.4 FT.
WIDTH OF BRIDGE OUT-TO-OUT 146 FT. (RT. < TO L OF BRIDGE)
WIDTH OF BRIDGE ALONG SKEW _____ FT. (IF UNABLE TO MEASURE AT RT. ∢ TO L OF BRIDGE)
NUMBER OF LANES/TRACKS ON BRIDGE 8

BRIDGE CONDITION

G (F) P C

DOES POTENTIAL EXIST FOR ELEMENTS FROM BRIDGE FALLING ON ROADWAY BENEATH? YES [ ] NO [X]

DOES POTENTIAL EXIST BECAUSE OF DETERIORATED CONDITION FOR FAILURE OF MAJOR MEMBERS? YES [ ] NO [X]

COMMENT ON ANY CONDITIONS OF BRIDGE THAT WOULD EFFECT ROADWAY BENEATH —

NOTE: IF UNDERPASS ROUTE IS DIVIDED HIGHWAY, USE TWO (2) OF THESE FORMS, ONE FOR EACH ROADWAY.

MINIMUM PICTURES REQUIRED

1. ELEVATION VIEW OF BRIDGE ON BOTH SIDES SHOWING UNDERPASS
2. VIEW SHOWING BOTH APPROACHES TO BRIDGE
3. VIEW SHOWING SAFETY FEATURES
4. VIEW SHOWING ANY PROBLEMS

SUMMARY
19-I65-10.54
4/5/00

I65/North First Street
4 Span/Cont. S.I.B.

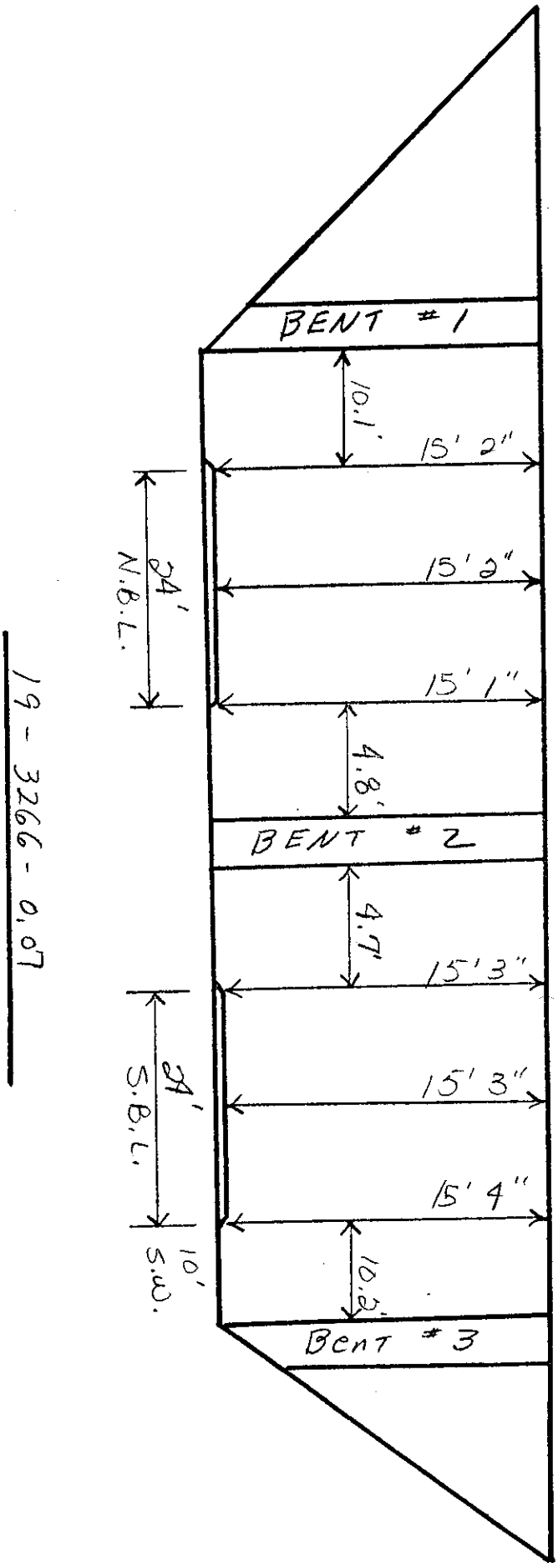
This bridge was inspected and found to be in fair condition. Approach alignment and approach areas are good. Bridge railing and approach rail are standard type and in good condition.

Concrete wearing surface is good, along with drains, and lighting standards. Parapet is fair with random breakouts with exposed rebar. Expansion joints show some loose sections over bent #1. Joint leakage shows moderate to heavy stains on the abutments and bent caps. Bottom deck is good with small breakouts with exposed steel up to 2" deep and 5' long in spans #2, #3, and #4 around previously patched areas at bents. There were also random transverse hair cracks with leaching. Other superstructure elements are in good condition. Bearing devices are fair with missing nuts and light corrosion.

The abutments are good. Abutment #2 backwall is fair with 2▮ deep scale. Wings are good. Bents are fair with a 1▮ deep beakout in the cap and 1/8▮ open longitudinal cracks 1/8▮ . Columns are fair with vertical high steel cracks. Underpass pier protection is not in place. The minimum distance to the nearest bent is 4.7'.

Gilbert Wayne Hunter

4-6-98MD
AUG 12 1998
10-16-03SJ



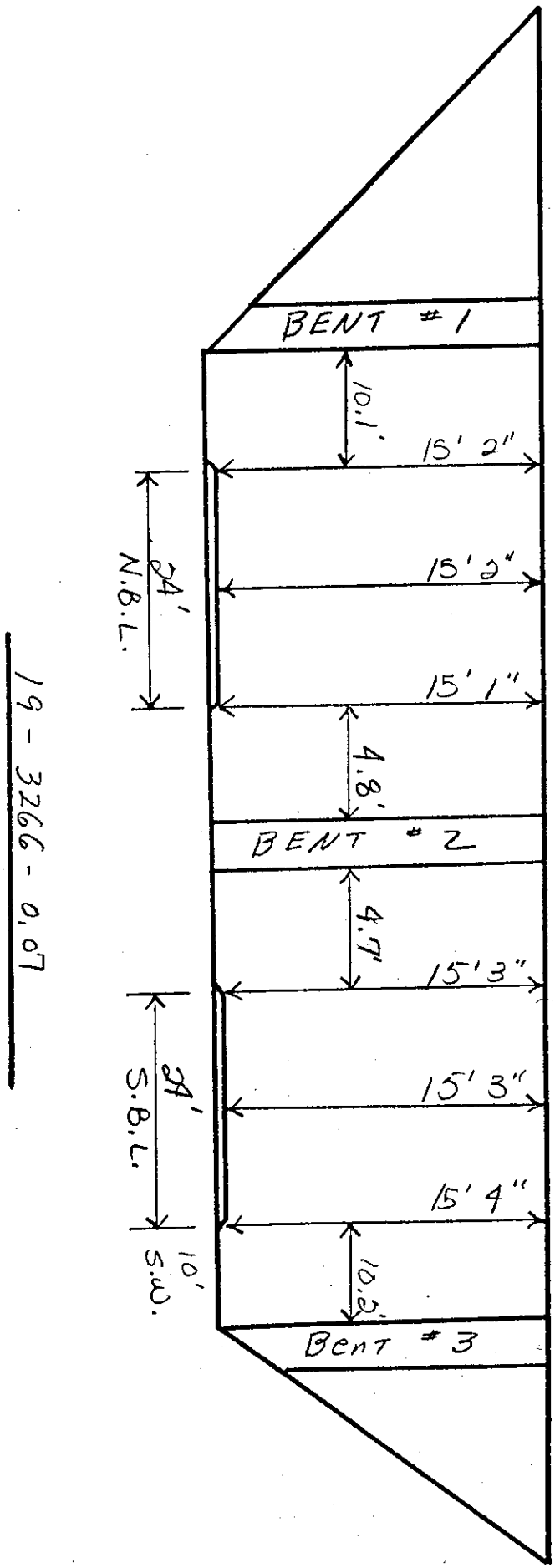
19 - 3266 - 0,07

19 - I65- 24 13,99 ~~19,54~~

Clearance Sketch

4-6-98MD

AUG 12 1991



19 - 3266 - 0.07

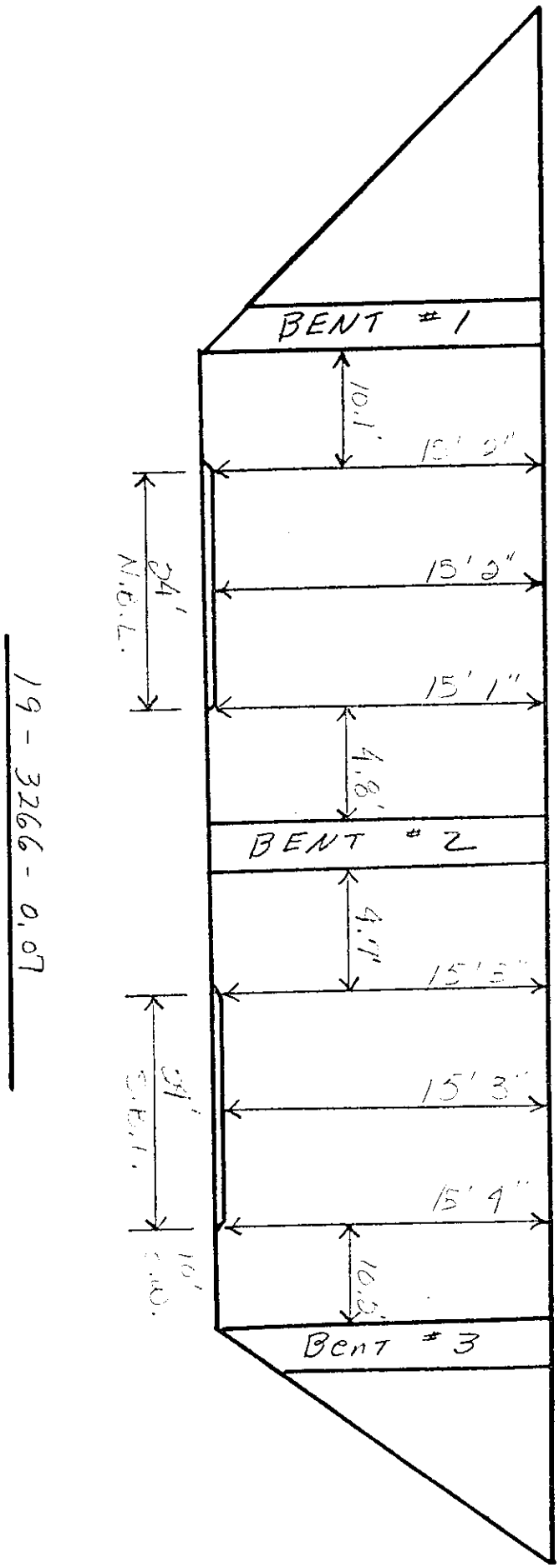
19 - I&S- 13,91 24 10.54

Clearance Sketch

27

4-6-98mo

AUG 12 1998

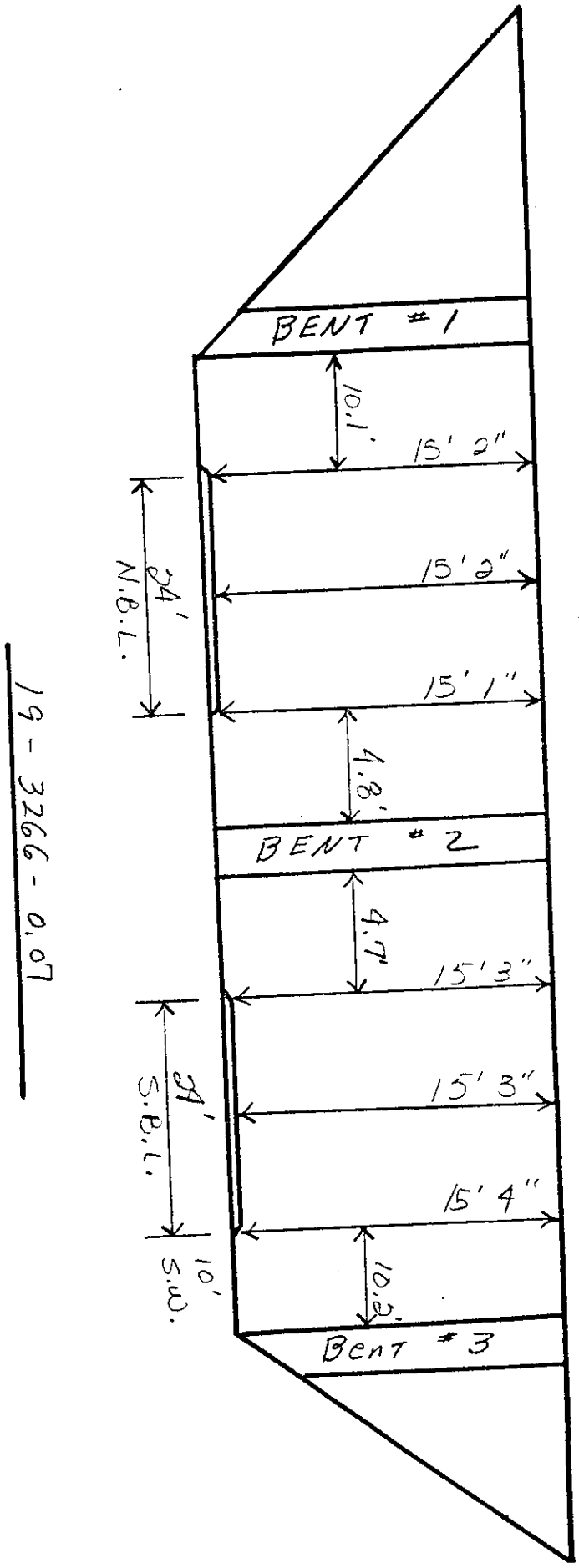


19 - 3266 - 0.07

19 - I65 - 10.54

Clearance Sketch

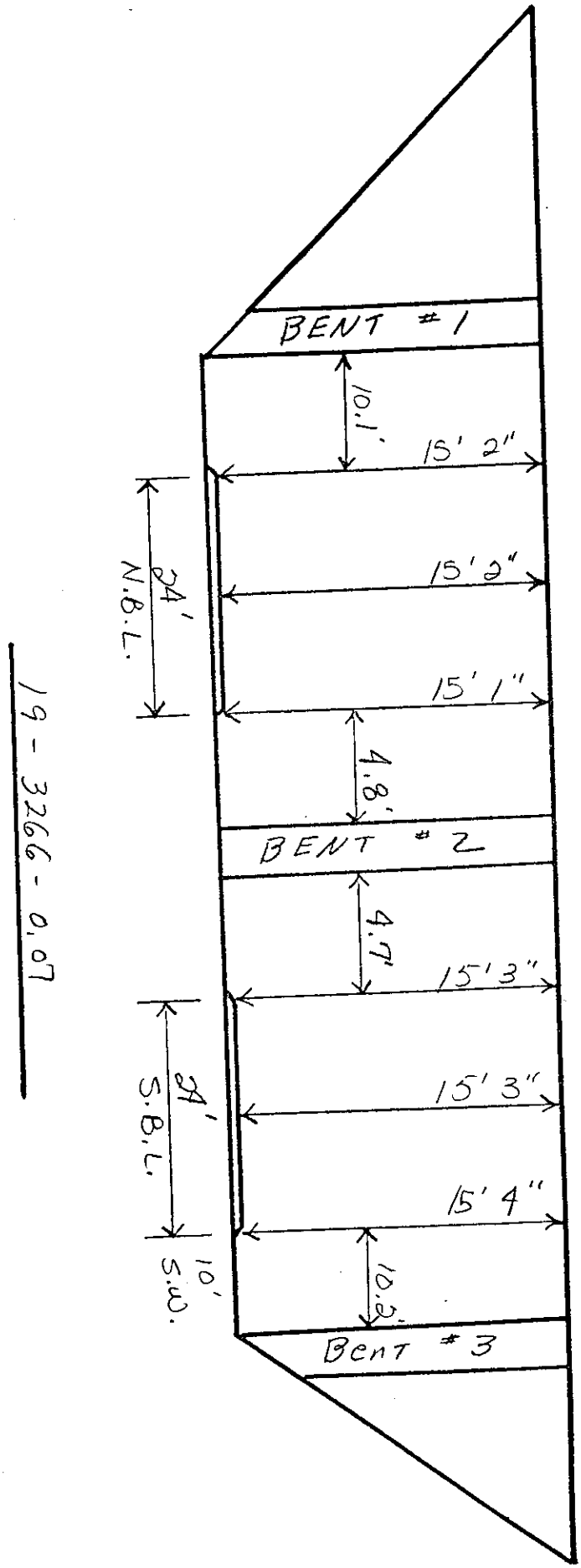
4-6-98MD
AUG 12 1991



Clearance Sketch

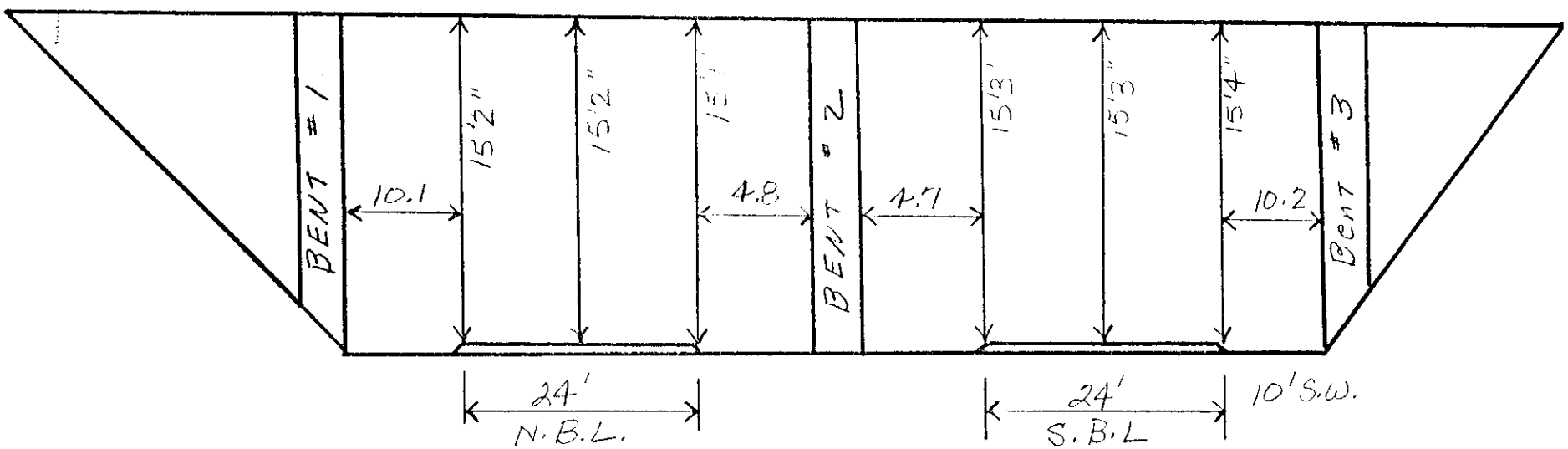
AUG 1 2 1991

Clearance Sketch



Clearance Sketch

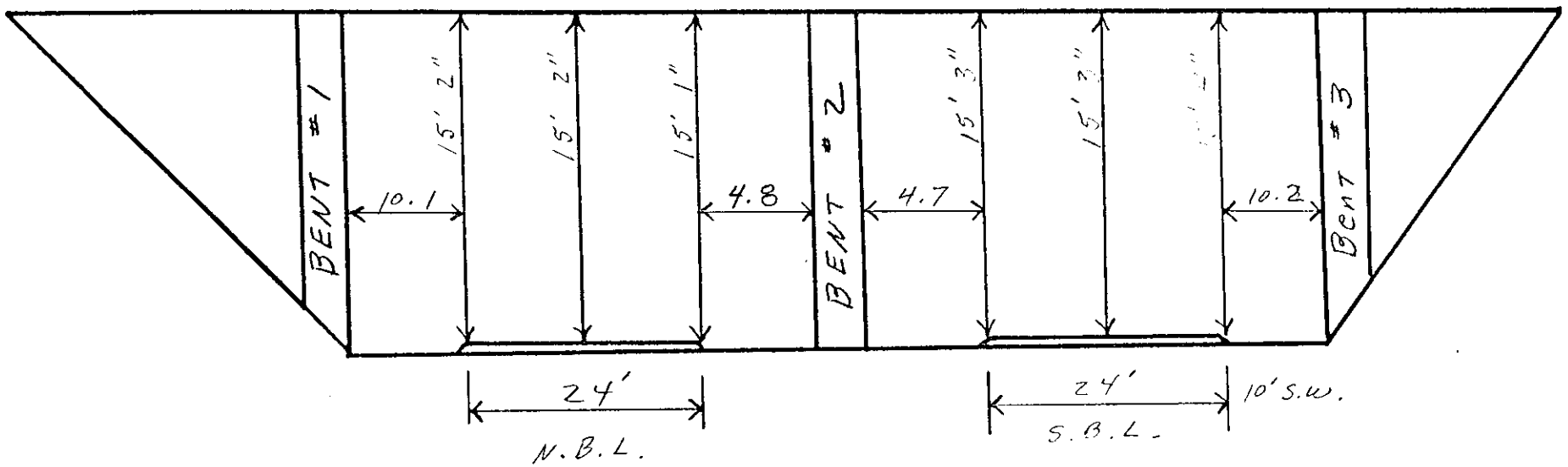
19-I65-10.54



19-3266-0.09

JUL 18 1989

19-I65-10.54 →



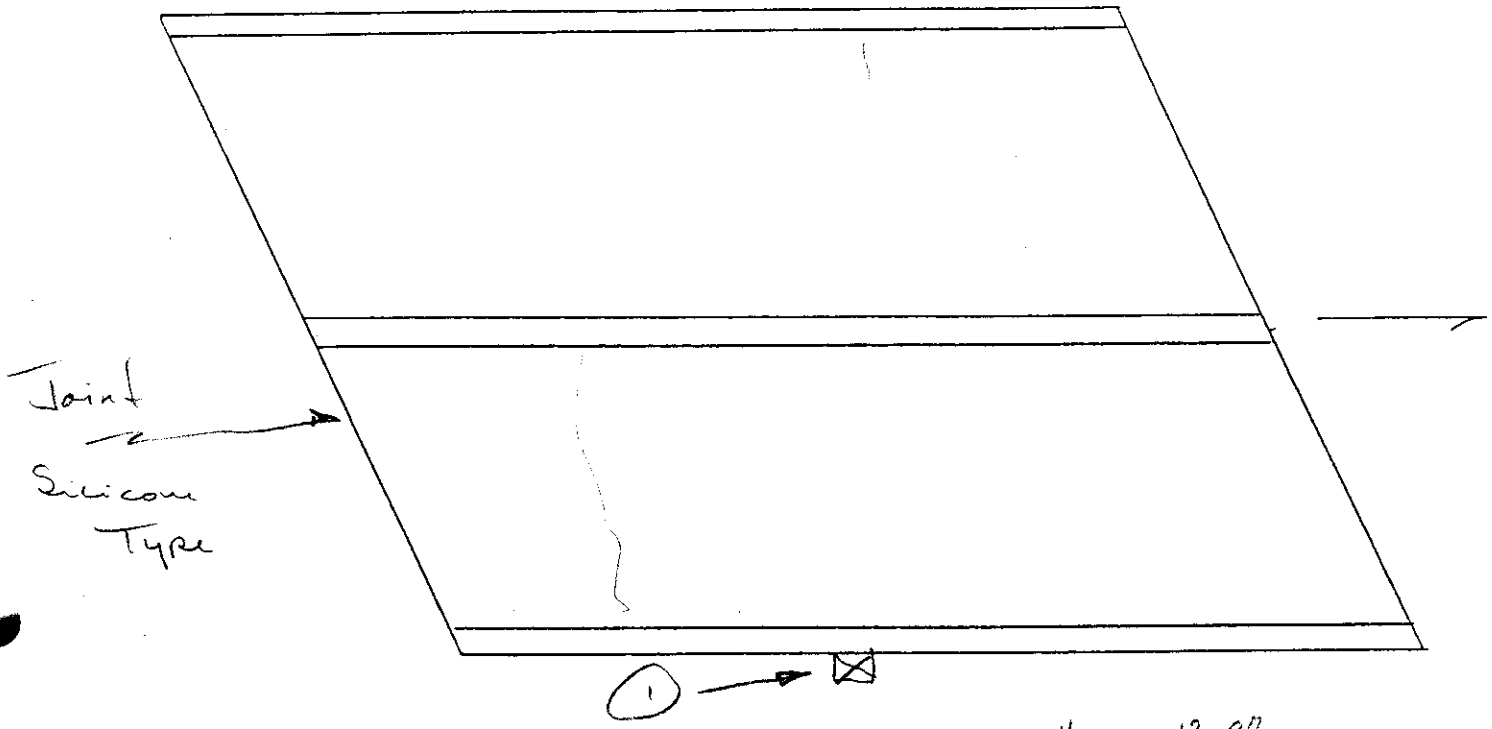
19-3266-0.01

27

JUN 18 1987

4-5-00

9.21.01 JW
10.16.03 JW



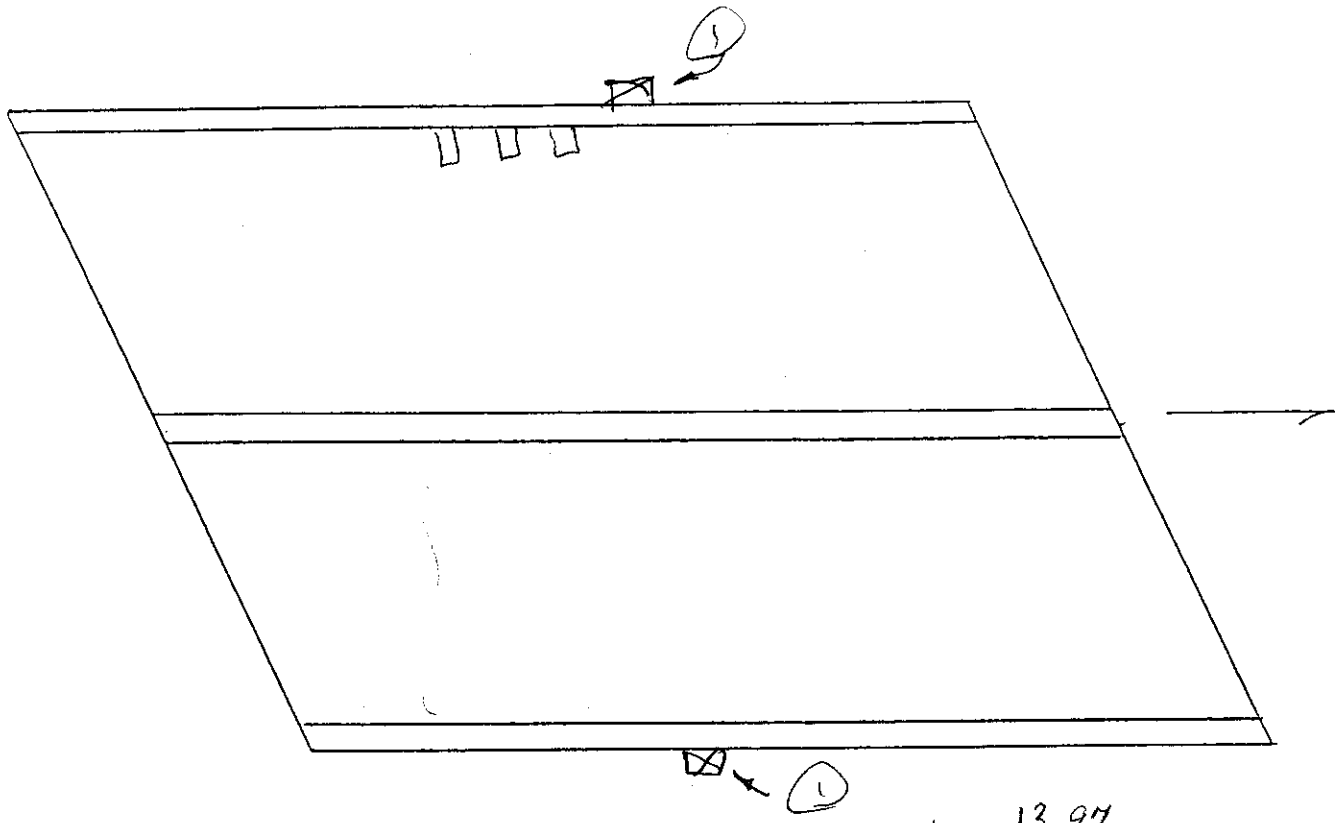
TOP Slab ± 1 Br. # 19 - I ~~65~~ 24 - ~~10.54~~ 13,97

Deck	G	RANDOM MAP CRACKING (Transvers)
Parapet	G	
Joints	G	Silicon Type
Drains	~~G~~ P	100% Clogged LT. SD.
Light-Stand. (1)	F	~~Fair Repaired Since Last Insp.~~ Lgh. Mod Cracks on Top @ Anchor Bolts

X

1-5-00 K

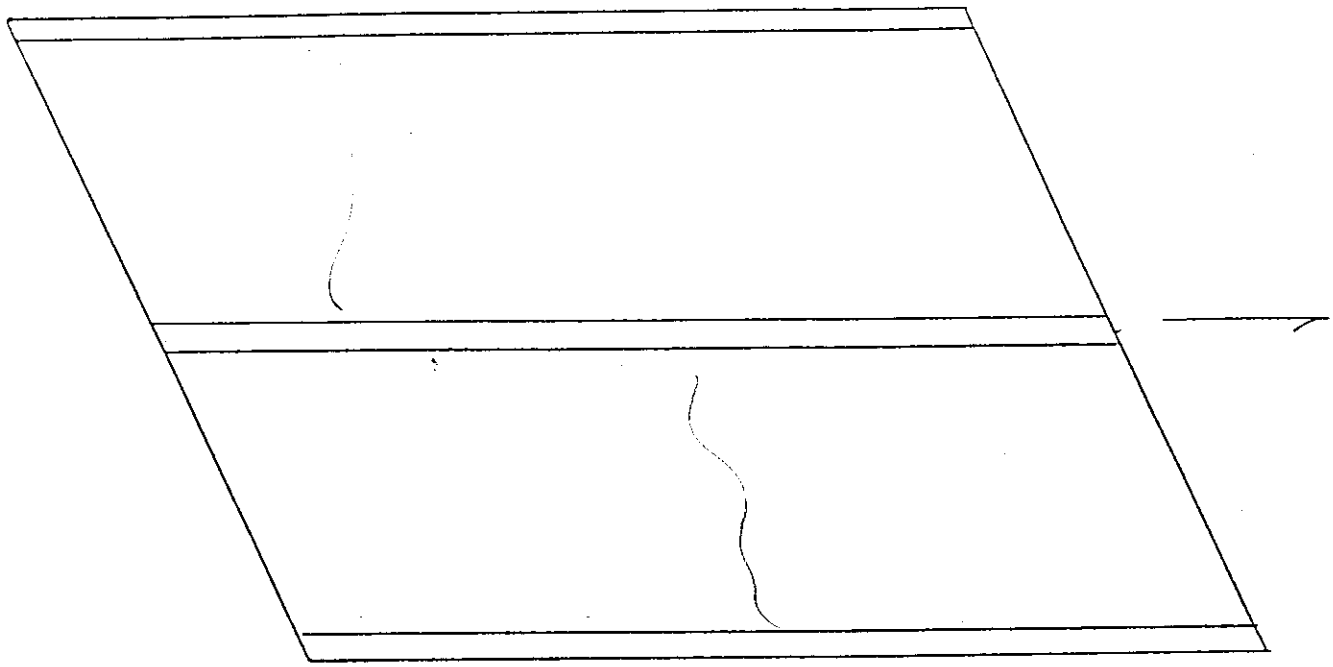
9.21.01 JW
10.14.03 JW



TOP Slab # 2 Br. # 19 - I ~~65~~ 24 - ~~L0.54~~ 13.97

Deck	G	RANDOM HAIR CRACKS (See #1)
Parapet	G	
Joints	~~NA~~ NA	
Drains	~~G~~ P	100% Clogged LT So.
Light - (1) Stand	F	~~See #3~~ See #1

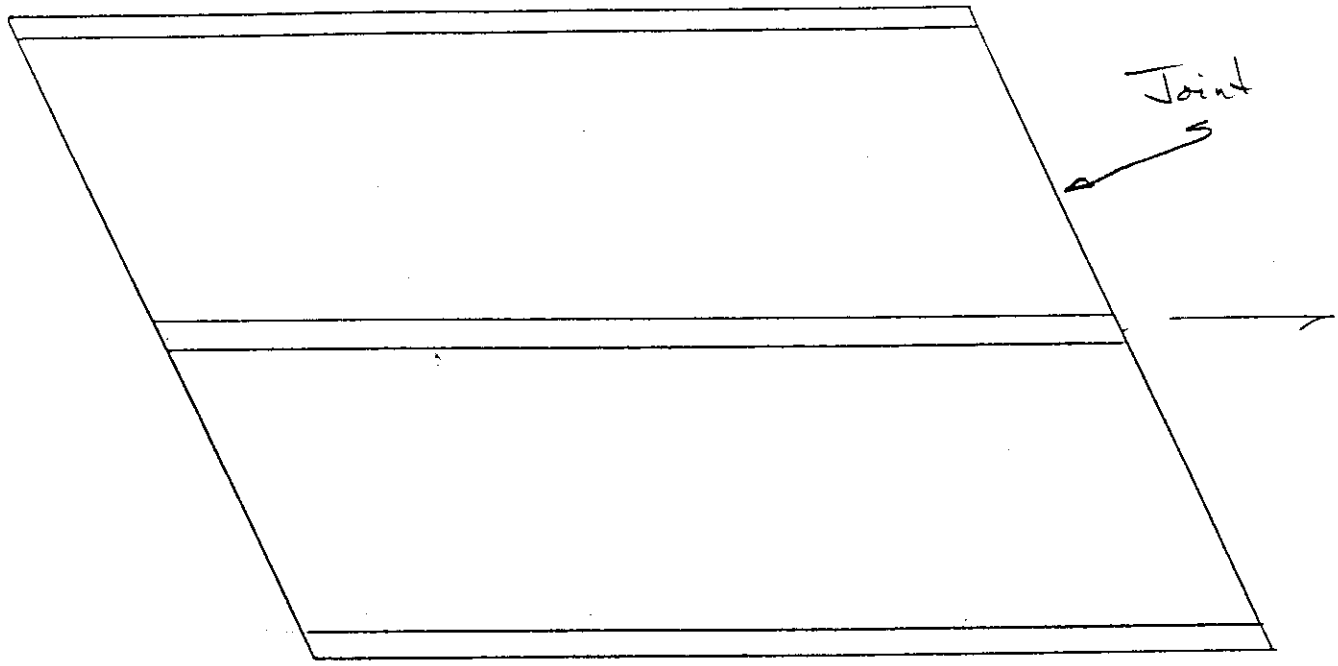
9.21.01 dw



Top Slab # 3 Br. # 19-I 24 13.97 ~~65 10.54~~

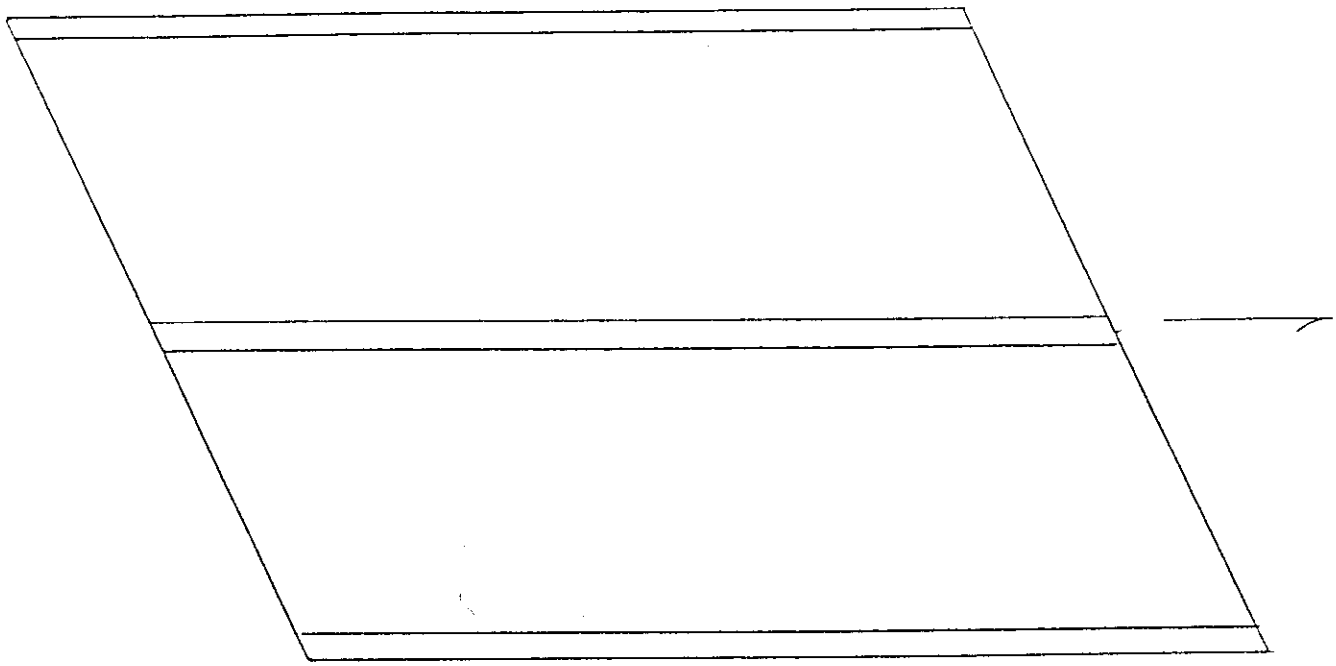
Deck	G	RANDOM HAIR CRACKS
Parapet	G	
Joints	NV	
Drains	G	
Light-Stand	F	Light - Mod. Cracks on Base Top @ Bolt Nut Connection

9.21.01 JW



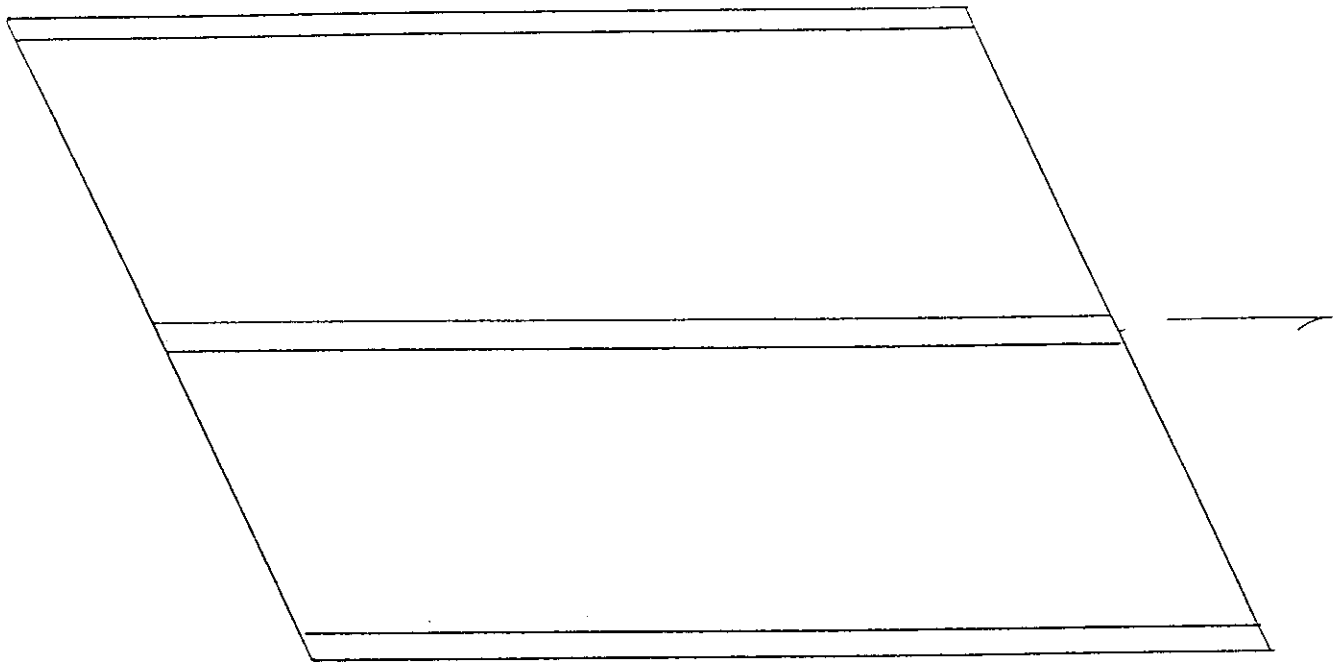
TOP SLAB = 4 Br. # 19-I 24 13.97 ~~65 10.54~~

DECK	G	RANDOM HAIR CRACKS
PARAPET	G	
JOINTS	G	Silicone Typ.
DRAINS	G	
LIGHT-STAND	F	See # 3



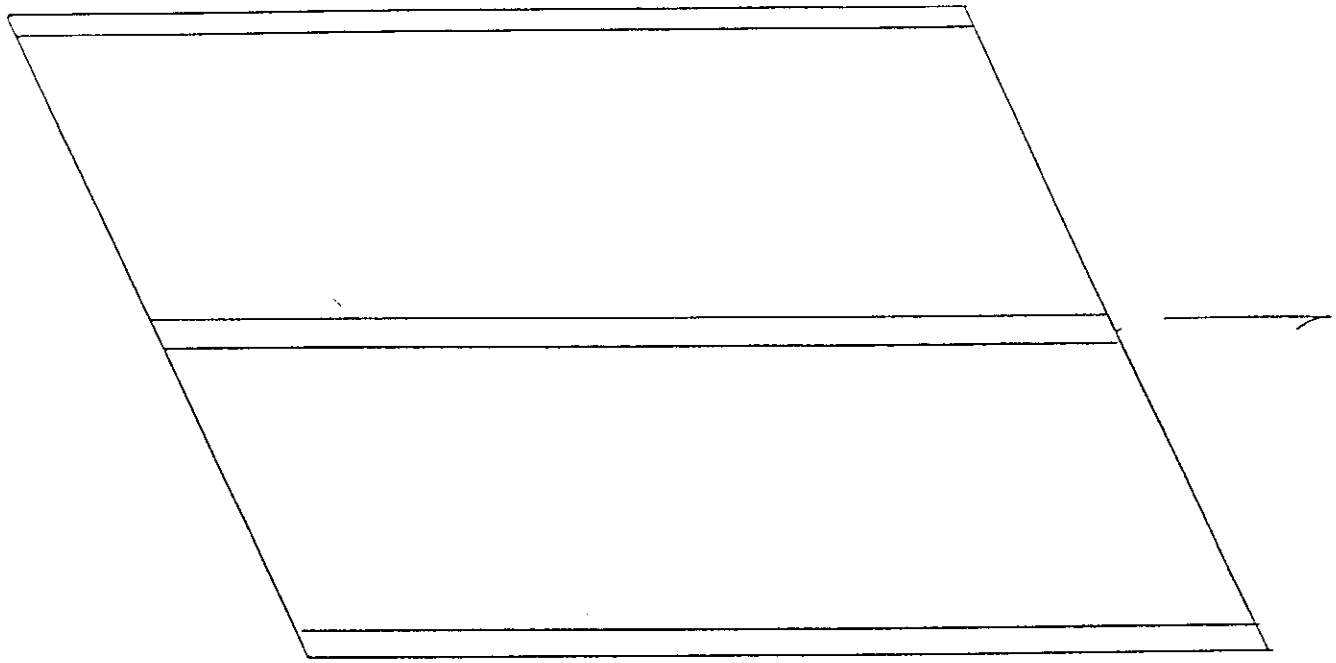
Top Slab # Br. # 19-J65-10.54

Deck	5	
Parapet	G	
Joints	G	
Drains	G	



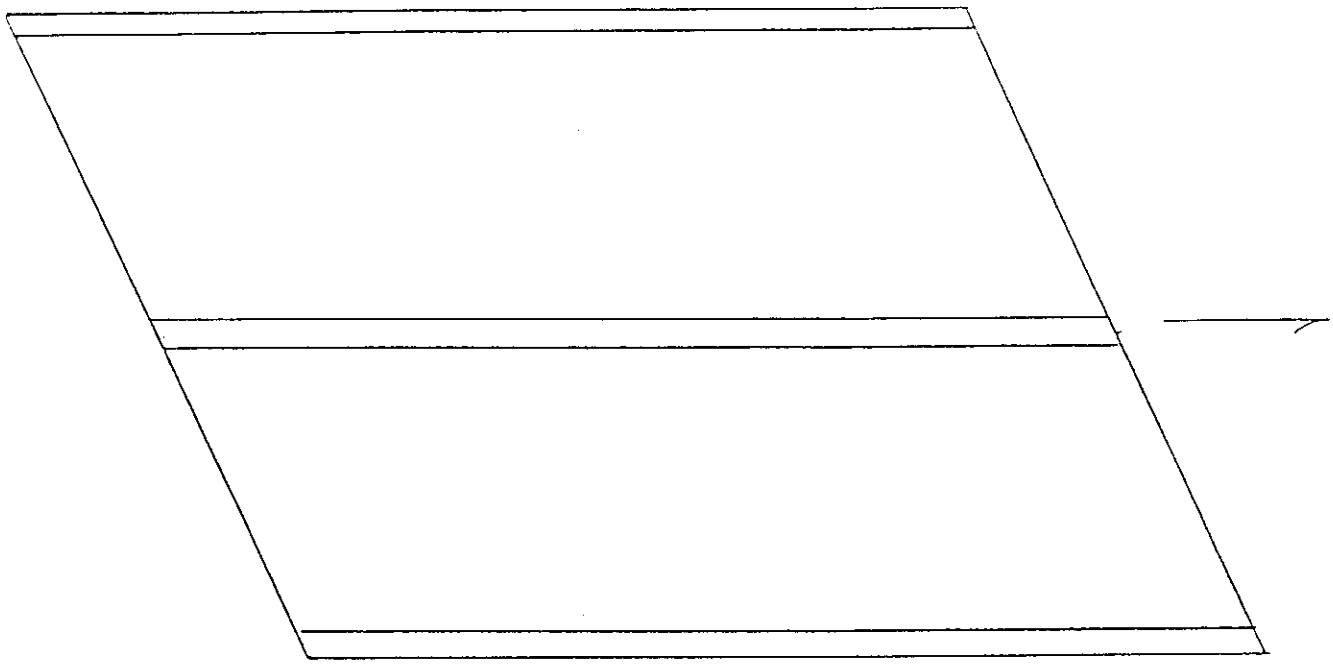
Top Slab = 2 Br. = 19-J65-10.54

Deck	G	
Parapet	G	
Joints		
Drains		



Top Slab = J Br. # 19-165-10.54

Deck	G	
Parapet	G	
Joints	N/A	
Drains	G	

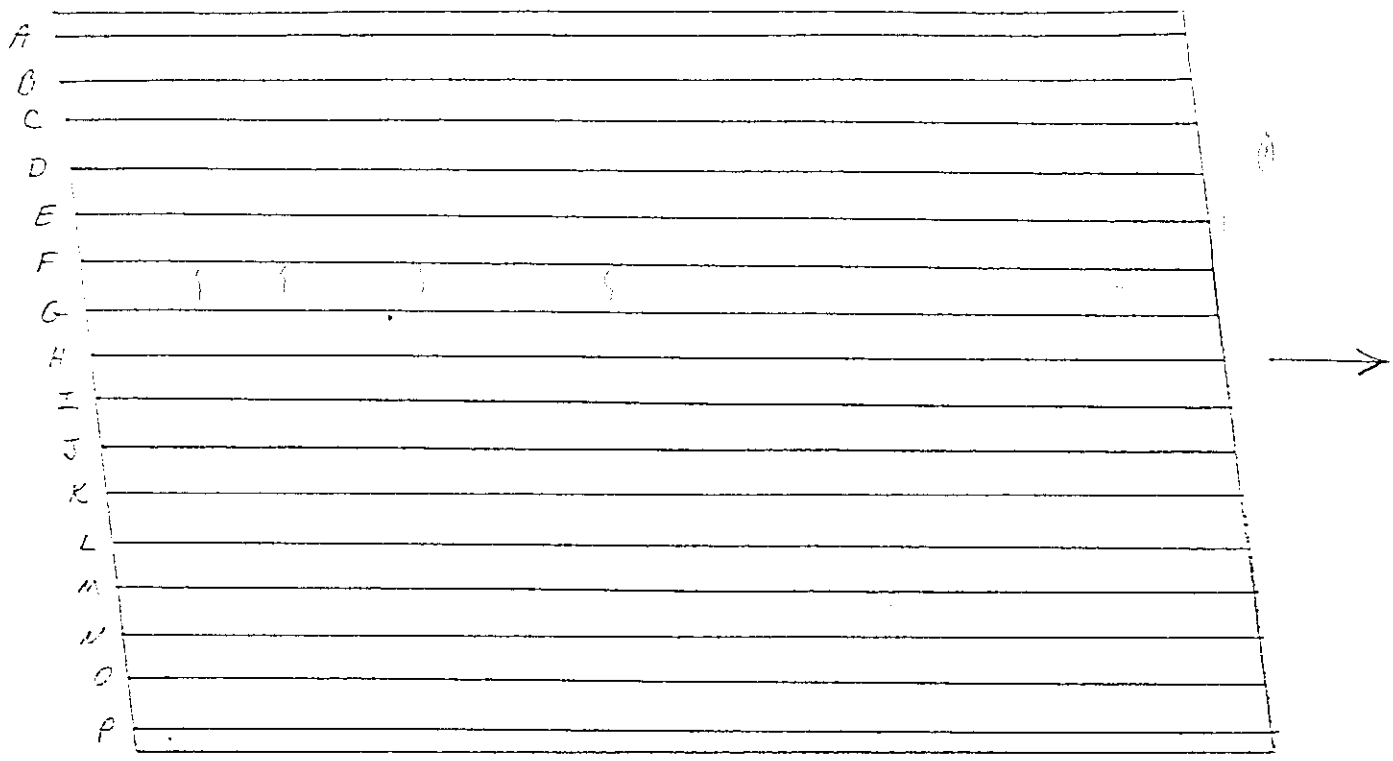


Top Slab = 4

Br. # 19-365-10.54

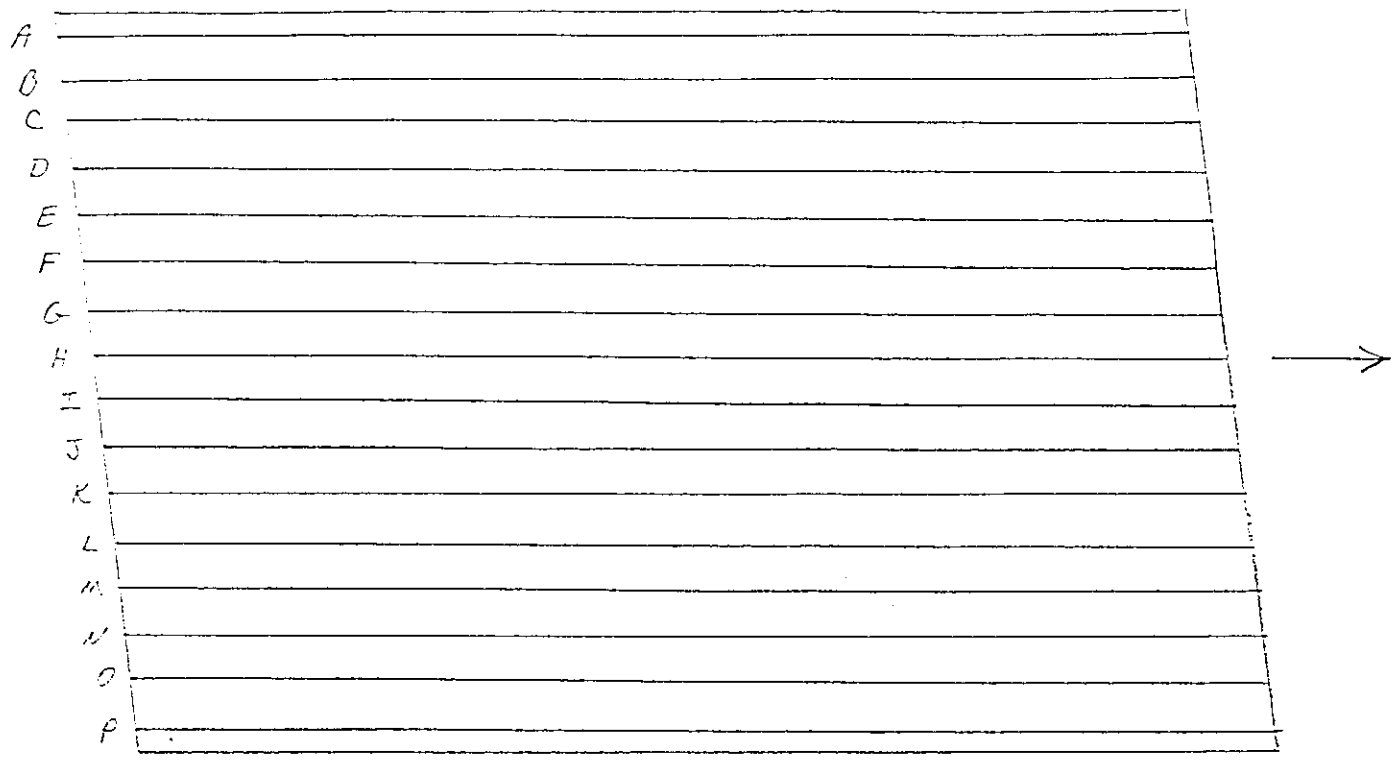
Deck	G	[illegible] MMS
Parapet	G	
Joints	G	
Drains	G	

4-5-00MD



BOTTOM SLAB = 1 Br. # 19-I65-10.54

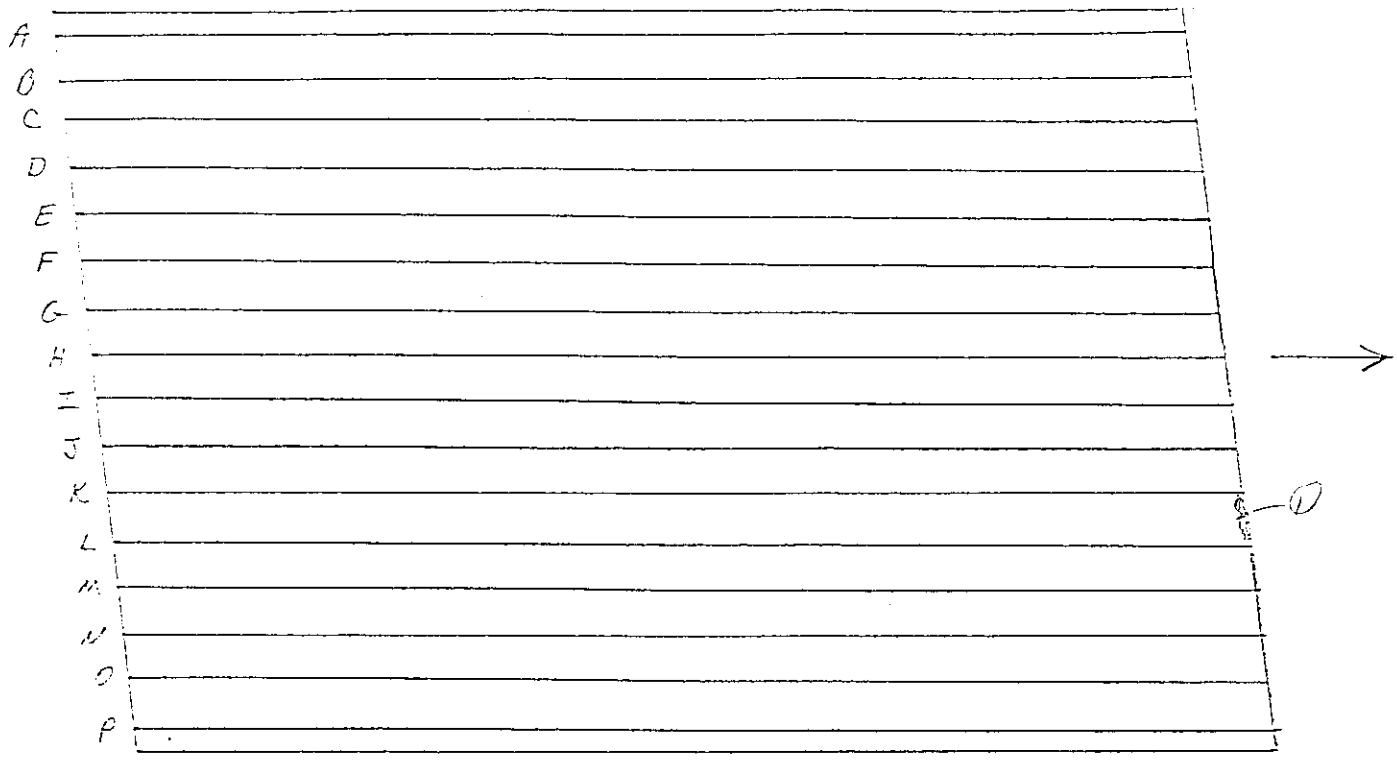
Deck	Good	random transverse hair cracks w/ efflor. (0 areas of 1/8" open cracks
Diaph.	Good	
Beams	Good	lgt surface rust coming through areas of thin paint



BOTTOM SLAB = 2 Br. = 19-I65·10·54

Deck	G	transverse h.c.'s w/ eff.flor
Diaph.	G	
Beams	G	

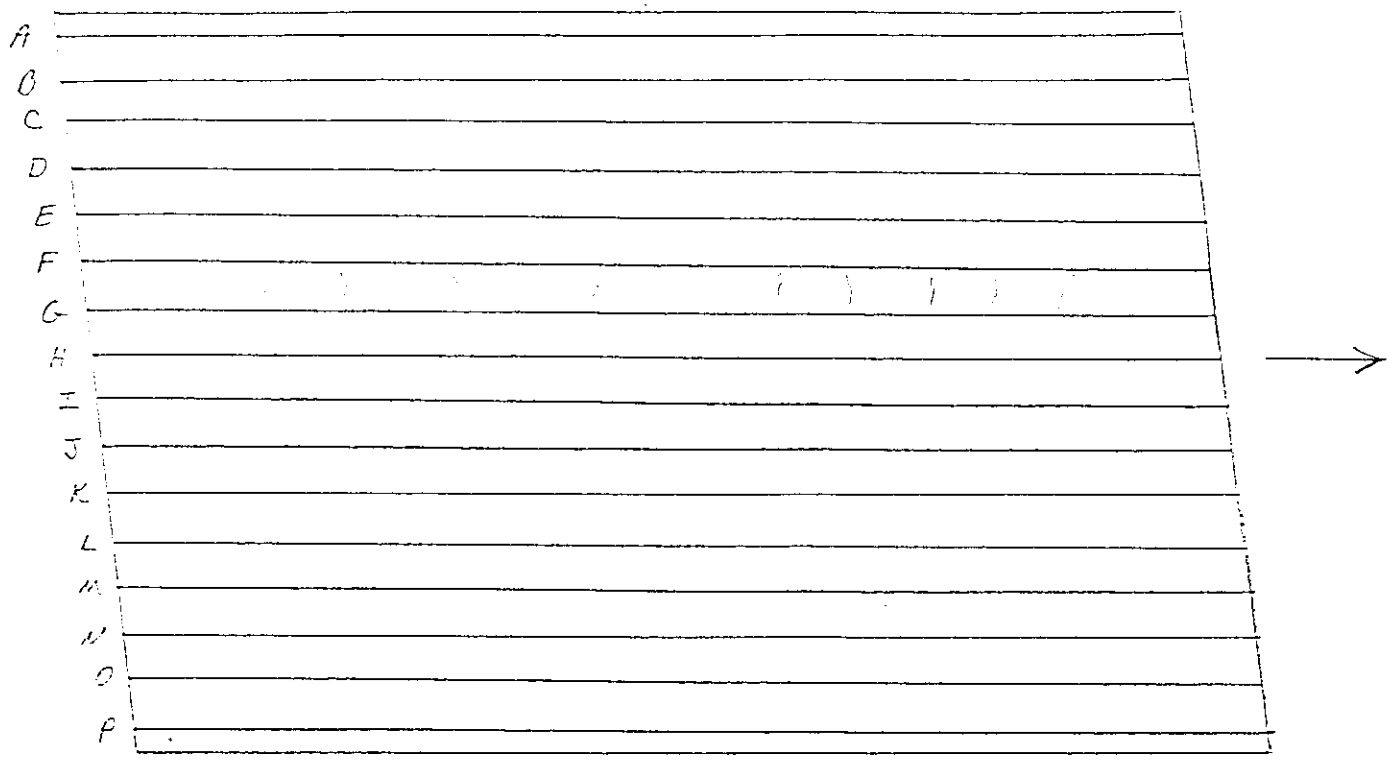
4-5-00MD



Bottom Slab = 3 Br. = 19-I65·10·54

Deck	Good	① 3" dp b.o.s w/ exp. steel random transverse hair cracks w/ efflor.
Diaph.	G	
Beams	G	

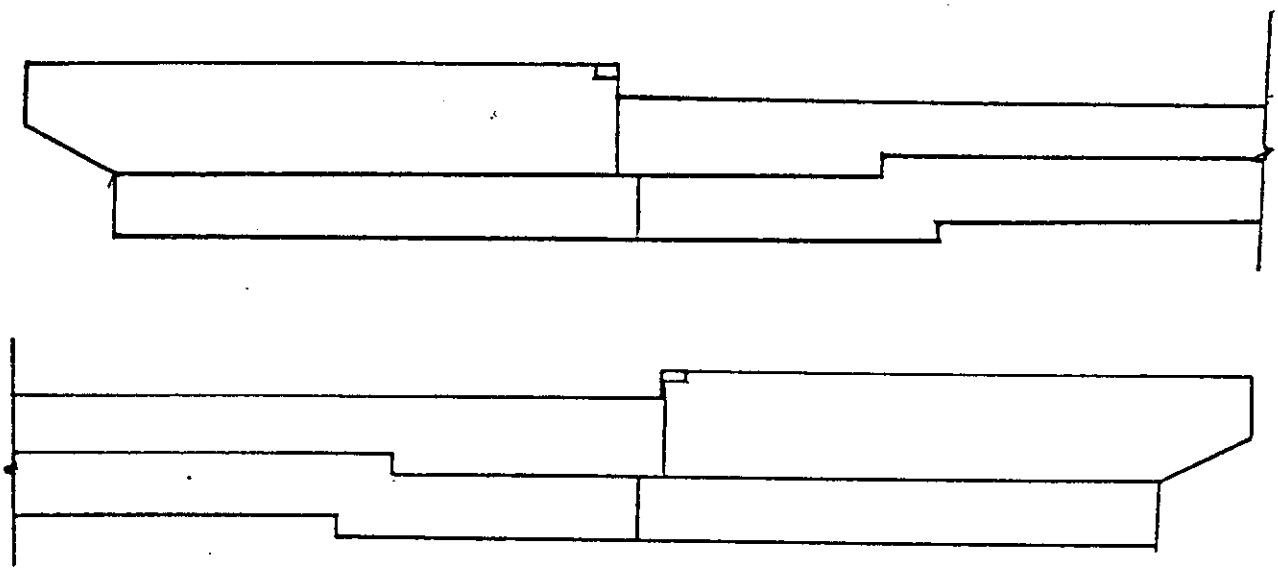
4-5-00MD



BOTTOM SLAB = 4 Br. = 19-I65·10.54

Deck	G	random trans. h.c.'s w/ eff flor.
Diaph.	G	
Beams	G	

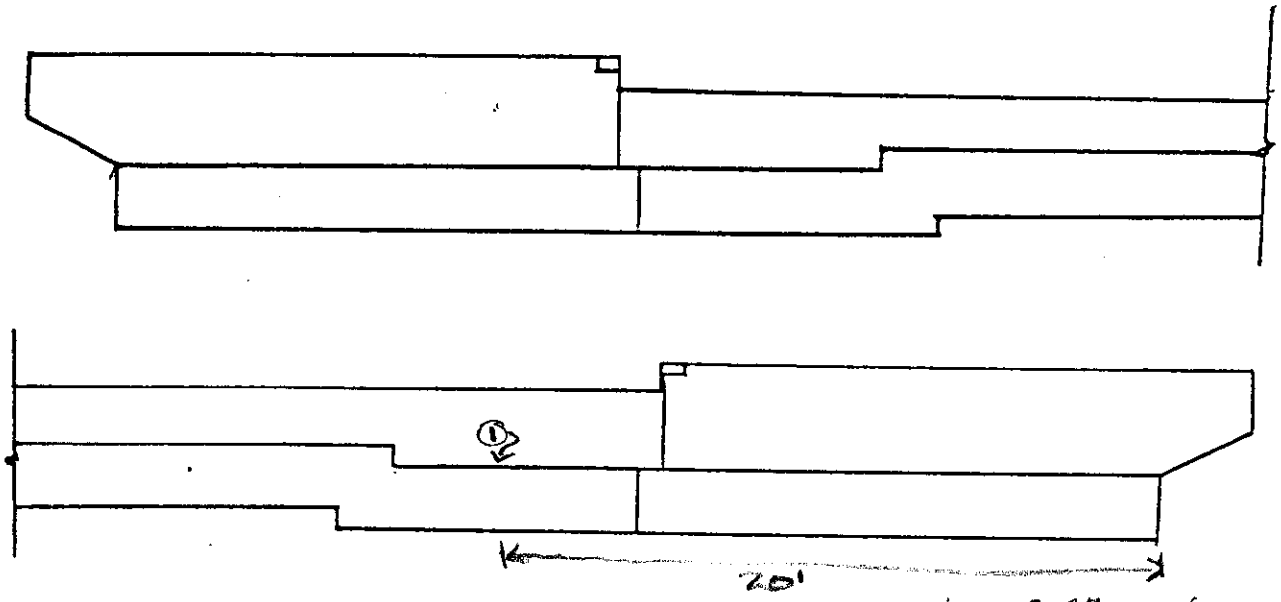
4-5-00 DS
10-16-09 BL



ABUT # 2 1 Br. # 19-I ~~65-10.54~~ 24-13.97

Back wall	Good	
CAP	Good	MODERATE SCALE
wings	Good	
Bearings	~~Good~~ F	HVY. CORROSION

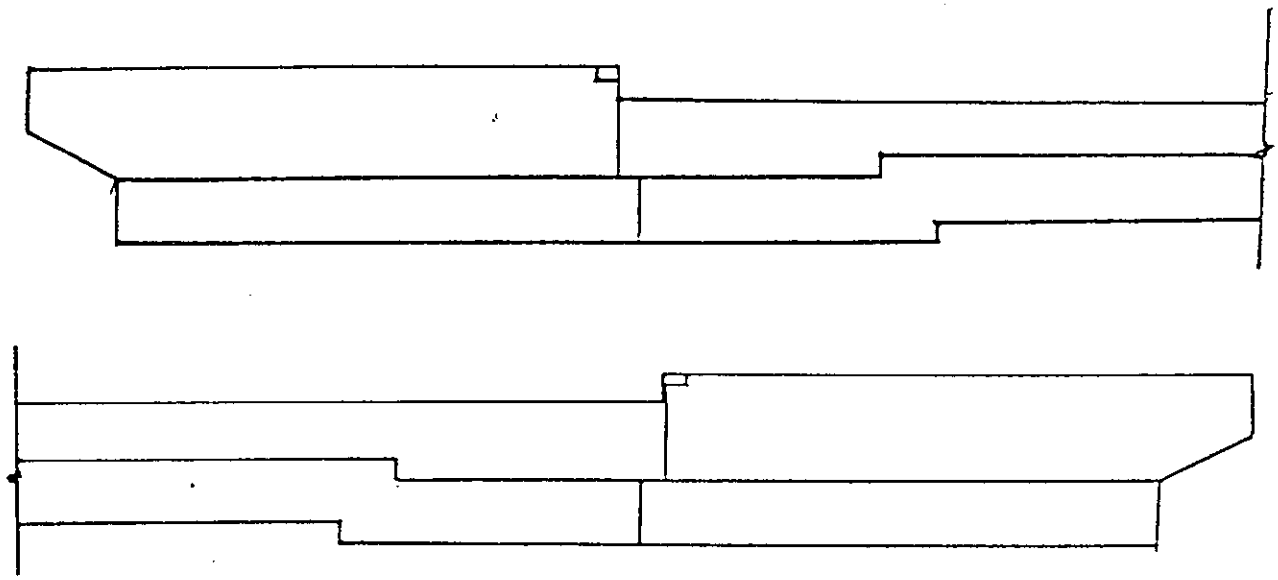
4-5-00 DS
9-21-01 BL
10-16-03 BL



ABUT #T2 Br. # 19-I~~65 10.54~~ 24 - 13,97 0/3266 - 0.07

Back wall	Good	
CAP	Good	MODERATE SCALE UPTO 1/2" D.P. - RANDOM @ HVY. SCALE UPTO 1 1/2" D.P.
wings	Good	
Bearings	~~Good~~ F	HVY. CORROSION

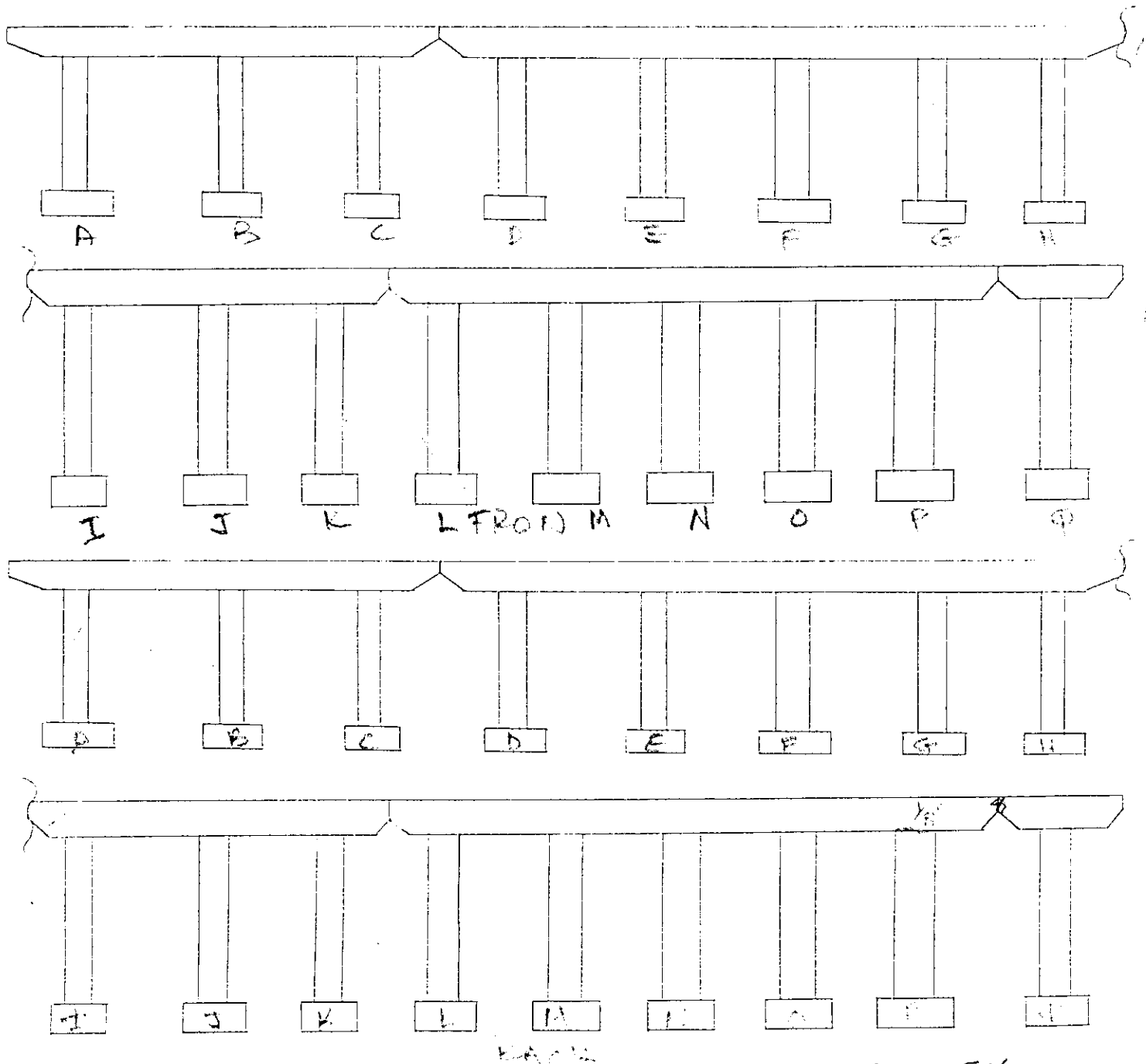
4-5-00



ABUT # 1 Br. # 19-I65-10.54

Back wall	Good
CAP	Good
wings	Good
Bearings	Good

4-5-00 DS

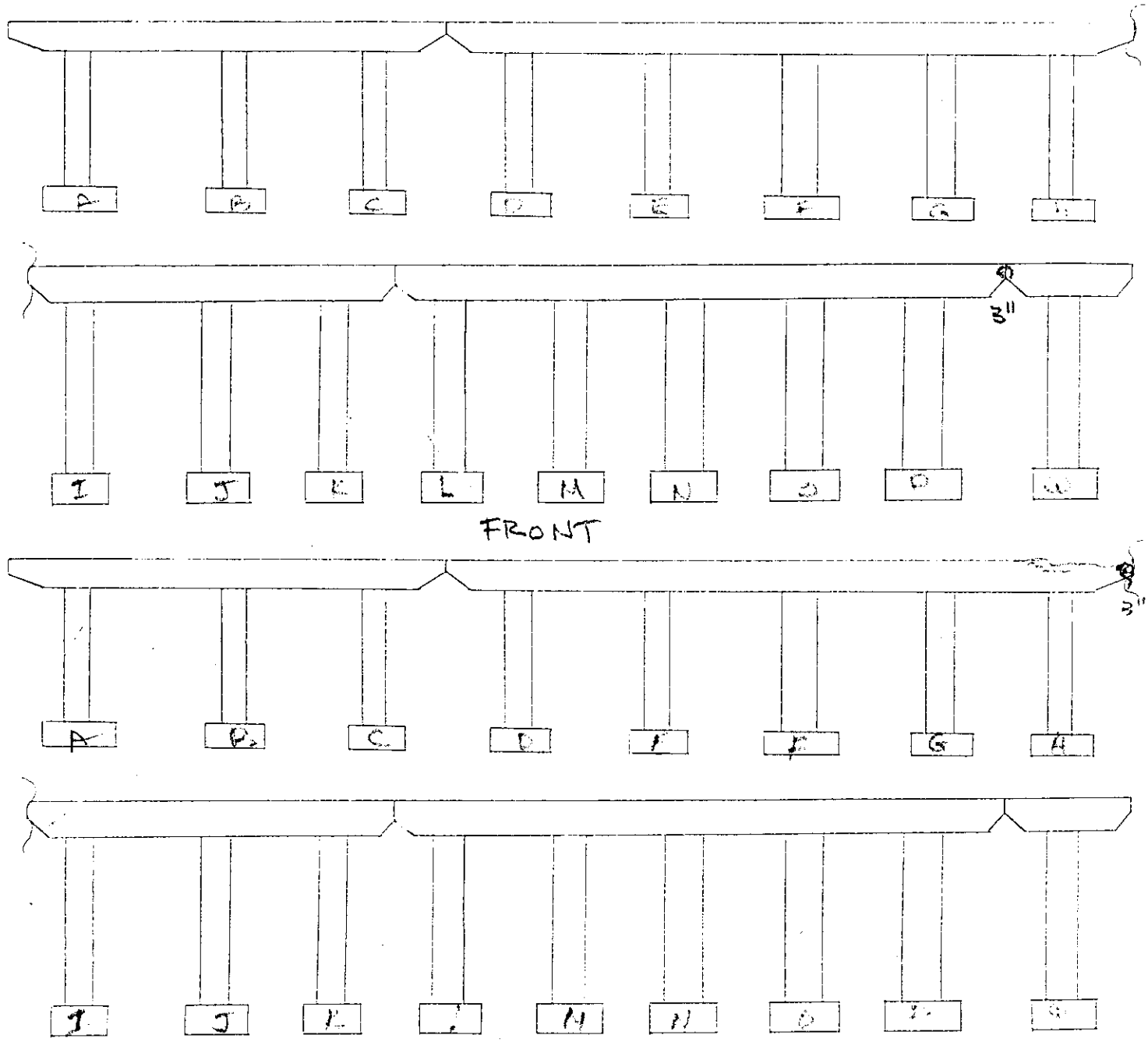


Bent # 1

Br. # 19-I65-10.54

CAP	Good; ½" cracks at [illegible]
Columns	Good
Footing	N/A
Bearings	Good

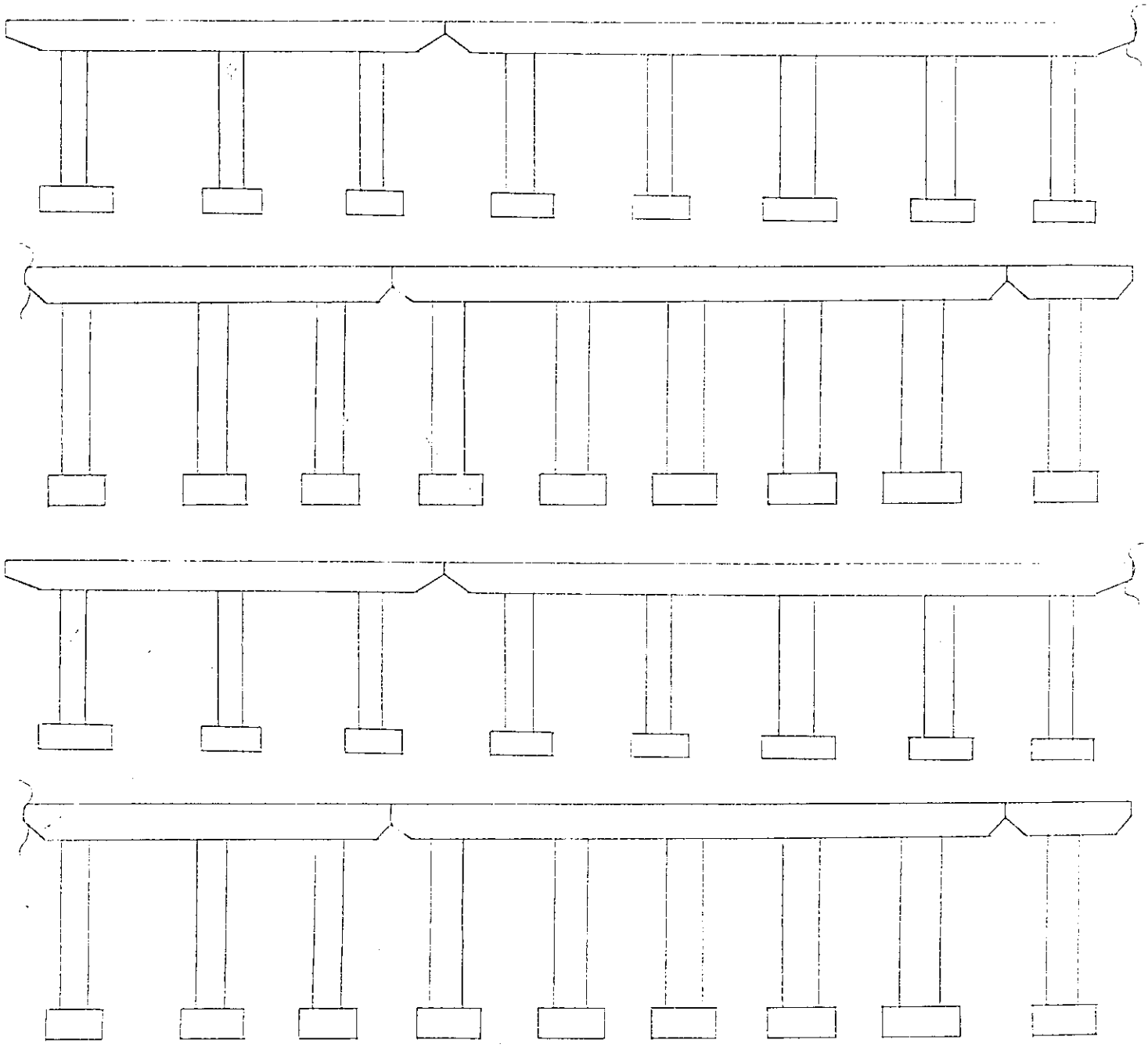
4-5-00 DS



Bent = _____ Br. # 19-I65-10.54

CAP	Good	2" [illegible] @ South [illegible] D & P and [illegible]
		Bearings in N.E. As shown on sketch.
Columns	Good	[illegible]
Footing	N/A	
Bearings	Good	

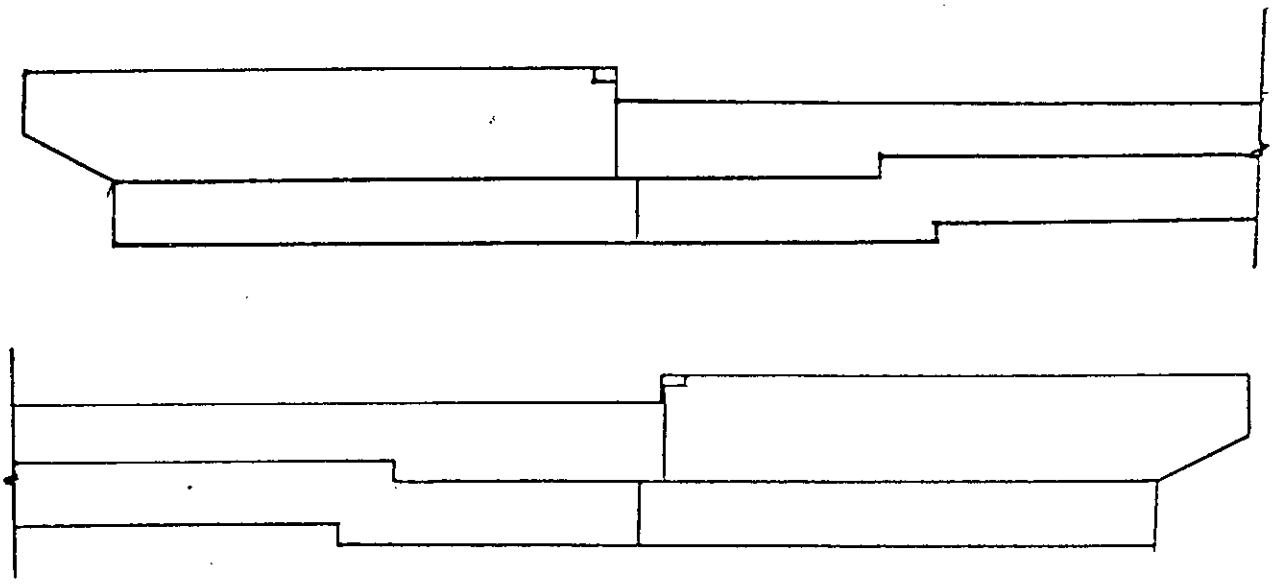
4-5-00 JS



Bent # 3 Br. # 19-I65-10.54

CAP	Good	Paint [illegible]
Columns	Good	[illegible]
Footing	N/A	
Bearings	Good	

4-5-00 JS



ABUT = 2 Br. = 19-I65-10.54

Back wall	Good
CAP	Good
wings	Good
Bearings	Good

INFORMATION REGARDING PAVING OVER EXISTING STRUCTURES AND BRIDGERAIL, MEDIAN BARRIER, PIER PROTECTION

INFORMATION COMPILED BY: A. Armanios

COUNTY: DAVIDSON
PROJECT LIMITS: I-24 L.M (12.80-15.88)
TENTATIVE LETTING DATE:

FEDERAL PROJECT NO.
STATE PROJECT NO.
PIN NO. 131713.00

RESURFACING PROJECT TYPE: Mill & 411 D
DATE: 5/10/2022

BRIDGE NUMBER PRESENT BRIDGE LAYOUT NO.	CROSSING AGE OF STR.	IS VALID DECK TEST AVAILABLE YES/NO	BARE DECK YES/NO*	DECK SEALED YES/NO	UNDERPASS VERTICAL CLEARANCE	BRIDGE LENGTH	BRIDGE WIDTH & NO. LANES USED	TYPE OF JOINTS & LOCATIONS BRIDGE TYPE	BRIDGE RAIL UPGRADE NEEDED YES/NO	MEDIAN BARRIER UPGRADE NEEDED YES/NO	PIER PROTECT. NEEDED YES/NO	BRIDGE RAIL UPGRADE RECOMM.	MEDIAN BARRIER RECOMM.	PIER PROTECT. RECOMM.	BRIDGE DECK RECOMM.
19I00240101 19-I 24-12.90 Underpass	I-65 NB LNS. / RT. LNS. ONLY				EBL 14'-7"										15
19I00240105 19-I 24-13.05 Underpass	RAMP 46-B FROM I-24 WB LNS. TO I-65 SB LNS.				EBL 14'-8"										15
19I00240107 19-I 24-13.79 Original: K-10-126 Widen: M-130-1	3266 N. FIRST ST. Built 1961 Widened 1986	NO	NO Asphalt = 3"	YES		379'	122'-6" 7 LANES	ELASTOMERIC @ BENTS 1 & 3 / PAVED OVER WPG		NO	NO		----	----	12** & 14
19I00240109 19-I 24-14.03 Repair : BR-122-1	3258 SPRING ST. Rehabed 2017	NO	NO Asph = 3 1/4"	YES		220'-3 11/16"	126'-6" 8 LANES	INTEGRAL @ ABUTS PSCB		NO	NO		----	----	12**
19I00240111 19-I 24-14.22 BR-122-26	D612 OLDHAM ST. / CSXT [350182D] Rehabed 2017	NO	NO Asph = 3 1/4"	YES		322'	124' 8 LANES	PSCB		NO	NO		----	----	12**

(1.) LEAVE AS IS
(2.) PAVE WITH TOP COAT
(3.) PAVE WITH PLANS MIX/TREATMENT TYPE
(4.) REMOVE ASPHALT (IF PRESENT)- PROVIDE DECK REPAIR ITEMS- SEAL WITH MEMBRANE (BRIDGE SHEETS INCLUDED)
(5.) PROVIDE DECK REPAIR ITEM- SEAL WITH TYPE 1 THIN EPOXY OVERLAY (BRIDGE SHEETS INCLUDED)
(6.) PROVIDE BRIDGE WITH NEW JERSEY PARAPET RAIL (REF. DWG. NO. SBR-2-124,125 & 126)
(7.) PROVIDE BRIDGE WITH NEW PIER PROTECTION (REF. DWG. NO. SBR-2-127 & 128)(S)
(8.) PROVIDE BRIDGE WITH NEW PIER PROTECTION (REF. DWG. NO. SBR-2-129 & 130)(V)
(9.) PROVIDE GUARDRAIL ATTACHMENTS TO EACH END POST AT APPROACH ENDS (REF. DWG. NO. SBR-2-131 & 132)(S)
(10.) PROVIDE GUARDRAIL ATTACHMENTS TO EACH END POST AT APPROACH ENDS (REF. DWG. NO. SBR-2-133 & 134)(V)
(11.) PROVIDE GUARDRAIL ATTACHMENTS TO APPROACH END OF EXISTING PIER PROTECTION (REF. DWG. NO. SBR-2-135)

(12.) COLD PLANE 1 1/4" OF THE EXISTING ASPHALT AND REPLACE WITH 1 1/4" OF NEW ASPHALT.
IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.
(13.) COLD PLANE _____OF THE EXISTING ASPHALT AND REPLACE WITH_____OF NEW ASPHALT.
IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.
(14.) REPLACE BRIDGE JOINTS (BRIDGE SHEETS INCLUDED)
(15.) TO MAINTAIN MINIMUM VERTICAL CLEARANCE OF THE UNDERPASS
COLD PLANE TO MATCH THE THICKNESS OF TREATMENT

* ASPHALT AND/OR FILL
** *SEE ATTACHED SPECIAL NOTE*

Rec Sheet Revised on 7/12/19 by D. Palmore

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRELIMINARY USE ONLY

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

TENNESSEE DEPARTMENT OF TRANSPORTATION
505 DEADERICK STREET, SUITE 1200
NASHVILLE, TN 37243
BRIAN K. EGLI, P.E. NO. 107196

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
SIGNATURE SHEET	STRUCTURE-SIGN 1
BRIDGE PLANS	B1 THRU B7

YEAR	PROJECT NO.	SHEET NO.
2023	19I024-M3-010	STRUCTURE-SIGN 1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

$$$$SYTIME$$$$$$
$$ DGNSPEC$$$$$$

FEDERAL PROJECT # NH-I24-9(98)

PROJECT NO.	YEAR	SHEET NO.
19I024-M3-010	2023	B-1

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

INDEX OF DRAWINGS

	DWG. NO.	LAST REV. DATE
SIGNATURE SHEET	STRUCTURE-SIGN 1	
INDEX OF DRAWINGS	B1	
BRIDGE TABULATION, ESTIMATED QUANTITIES AND PLAN VIEW JOINTS REPAIRS LOCATIONS	B2	
PHASE CONSTRUCTION	B3	
PHASE CONSTRUCTION	B4	
SECTION VIEW SLAB THICKNESSES LIMITS	B5	
TYPICAL SECTION FOR EXPANSION JOINTS REMOVAL	B6	
EXPANSION JOINT REPAIRS DETAILS TYPE "C"	B7	

INDEX OF REFERENCE DRAWINGS

	DWG. NO.
WIDENING PLANS	M-130-1, M-130-4, M-130-7, M-130-9 THRU M-130-12 M-130-16
ORIGINAL PLANS	K-10-81 THRU K-10-88 K-10-126, K-10-128

PRELIMINARY USE ONLY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX OF DRAWINGS
19-I 24-13.79 OVER
NORTH FIRST STREET
DAVIDSON COUNTY
2023

PIN NO.: 131713.00

DESIGN BY:		DATE: / /
DRAWN BY:	SILESHI ERGICHO	DATE: 05/23
SUPERVISED BY:	KEVIN MARTINKO	DATE: 05/23
CHECKED BY:		DATE: / /

$$$$SYTIME$$$$$$$$
$$$$DGNSPEC$$$$$$$$

TABULATION OF BRIDGE RELATED WORK AND ESTIMATED QUANTITIES

LOCATION OF BRIDGE AND BRIDGE NUMBER	REFERENCE DRAWINGS TO BE PRINTED WITH CONTRACT DRAWINGS	TYPE OF WORK	604-10.35 EXPANSION JOINT REPAIRS L.F.
19-I 24-13.79 OVER NORTH FIRST STREET (19I00240107)	M-130-1, M-130-4, M-130-7, M-130-9 THRU M-130-12 M-130-16 K-10-81 THRU K-10-88 K-10-126, K-10-128	EXPANSION JOINT REPAIRS (TYPE C)	644
TOTAL			644

PROJECT NO.	YEAR	SHEET NO.
19I024-M3-010	2023	B-2

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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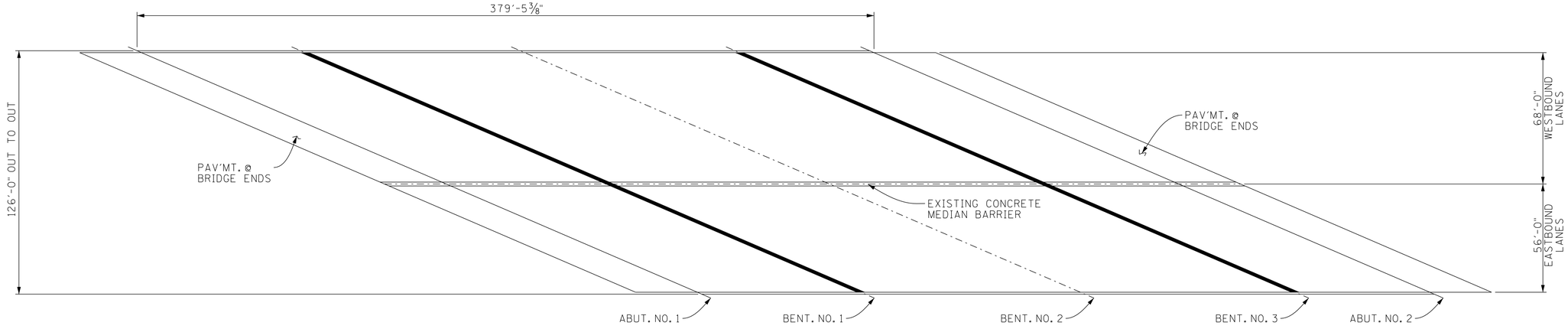

PLAN VIEW

19-I 24-13.79

DENOTES: JOINTS REPAIRS LOCATIONS

PRELIMINARY USE ONLY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE TABULATION, ESTIMATED QUANTITIES AND PLAN VIEW JOINTS REPAIRS LOCATIONS
19-I 24-13.79 OVER
NORTH FIRST STREET
DAVIDSON COUNTY
2023

B-2

PIN NO.: 131713.00

DESIGN BY: DATE: / /

DRAWN BY: SILESHI ERGICHO DATE: 05/23

SUPERVISED BY: KEVIN MARTINKO DATE: 05/23

CHECKED BY: DATE: / /

$$$$$SYTIME$$$$$$$$
$$$$DGNSPEC$$$$$$$$

PROJECT NO.	YEAR	SHEET NO.
19I024-M3-010	2023	B-3

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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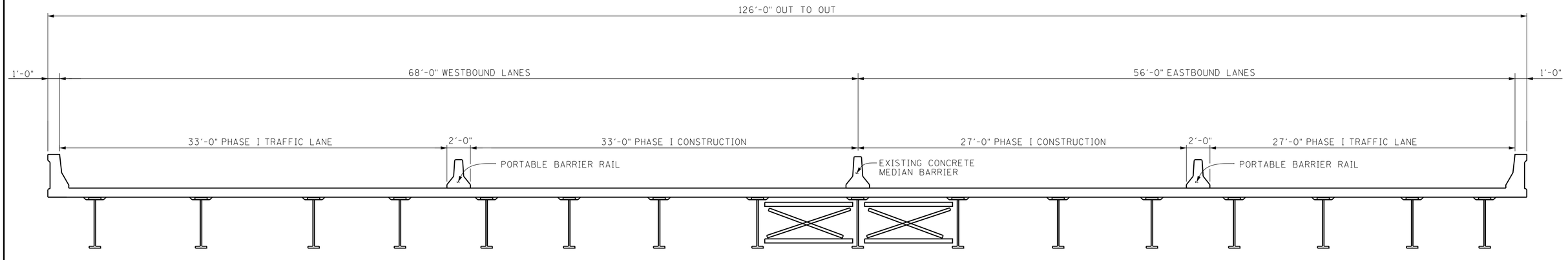

PHASE I CONSTRUCTION-EAST ℄ WESTBOUND LANES

(LOOKING AHEAD ON SURVEY)

PRELIMINARY USE ONLY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PHASE CONSTRUCTION
19-I 24-13.79 OVER
NORTH FIRST STREET
DAVIDSON COUNTY
2023

PIN NO.: 131713.00

DESIGN BY: _____ DATE: / /

DRAWN BY: SILESHI ERGICHO DATE: 05/23

SUPERVISED BY: KEVIN MARTINKO DATE: 05/23

CHECKED BY: _____ DATE: / /

$$$$SYTIME$$$$$$$
$$$$DGNSPEC$$$$$$$

PROJECT NO.	YEAR	SHEET NO.
19I024-M3-010	2023	B-4

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
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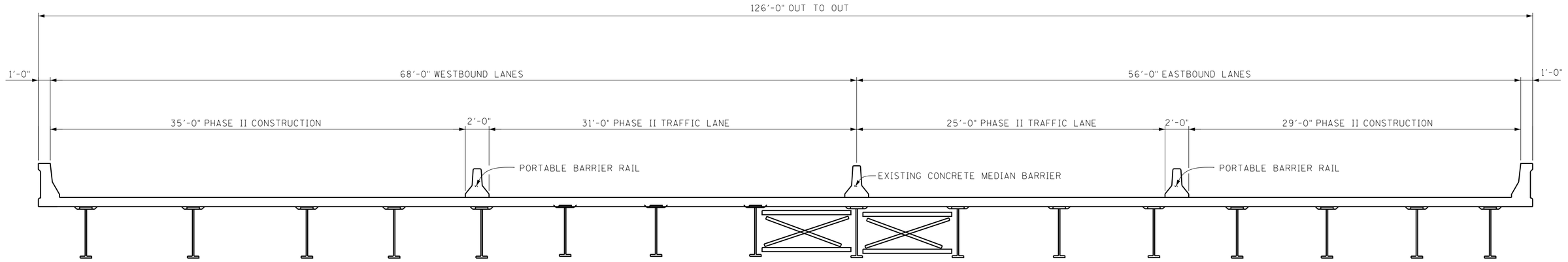

PHASE II CONSTRUCTION-EAST ℄ WESTBOUND LANES

(LOOKING AHEAD ON SURVEY)

PRELIMINARY USE ONLY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PHASE CONSTRUCTION
19-I 24-13.79 OVER
NORTH FIRST STREET
DAVIDSON COUNTY
2023

PIN NO.: 131713.00

DESIGN BY: _____ DATE: / /

DRAWN BY: SILESHI ERGICHO DATE: 05/23

SUPERVISED BY: KEVIN MARTINKO DATE: 05/23

CHECKED BY: _____ DATE: / /

$$$$$SYTIMESSSSSSSS
$$$$DGNSPEC

PROJECT NO.	YEAR	SHEET NO.
19I024-M3-010	2023	B-5

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
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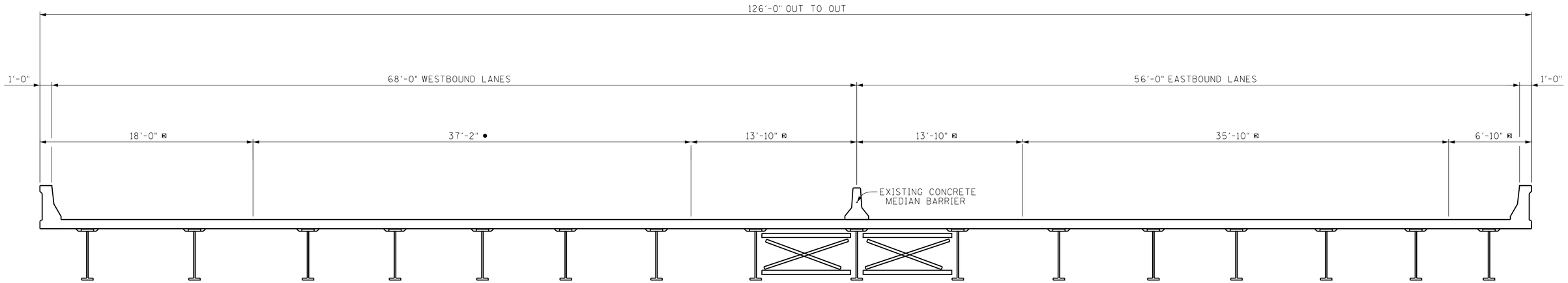

⊠ DENOTES: WIDENED SECTION OF THE BRIDGE 8½" THICK SLAB.

• DENOTES: ORIGINAL BRIDGE DECK WITH 4½" CONCRETE OVERLAY, 10½" TOTAL SLAB THICKNESS.

PRELIMINARY USE ONLY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SECTION VIEW
SLAB THICKNESSES
LIMITS
19-I 24-13.79 OVER
NORTH FIRST STREET
DAVIDSON COUNTY
2023

PIN NO.: 131713.00

DESIGN BY: _____ DATE: / /

DRAWN BY: SILESHI ERGICHO DATE: 05/23

SUPERVISED BY: KEVIN MARTINKO DATE: 05/23

CHECKED BY: _____ DATE: / /

$$$$$YTIME$$$$$$$
$$$$DGNSPEC$$$$$$$

PROJECT NO.	YEAR	SHEET NO.
19I024-M3-010	2023	B-6

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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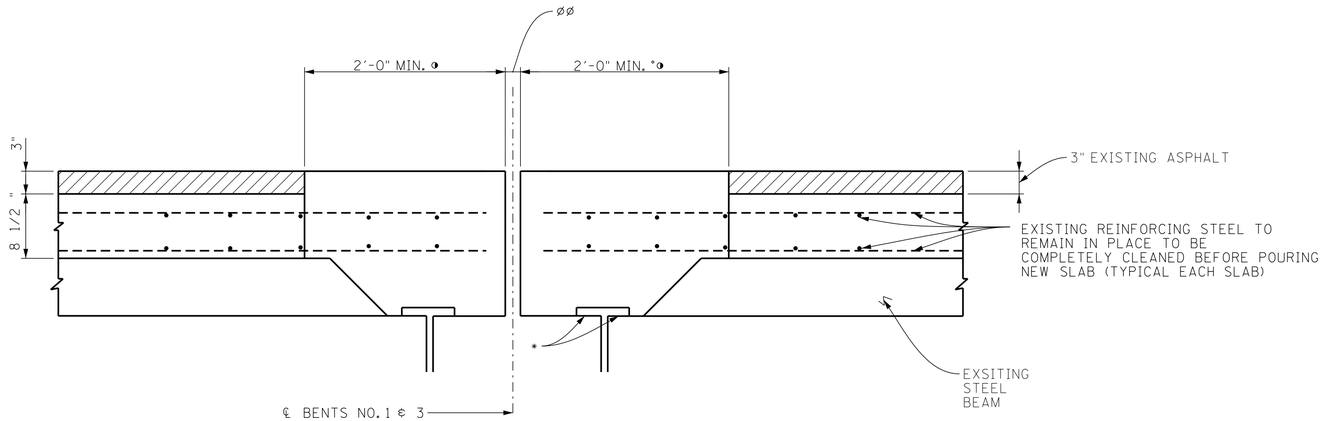
	- -		
	- -		
	- -		
	- -		



TYPICAL WIDENED SECTION @ BENTS 1 & 3 FOR REMOVAL

(SEE SHEET B5 FOR THE LIMITS)

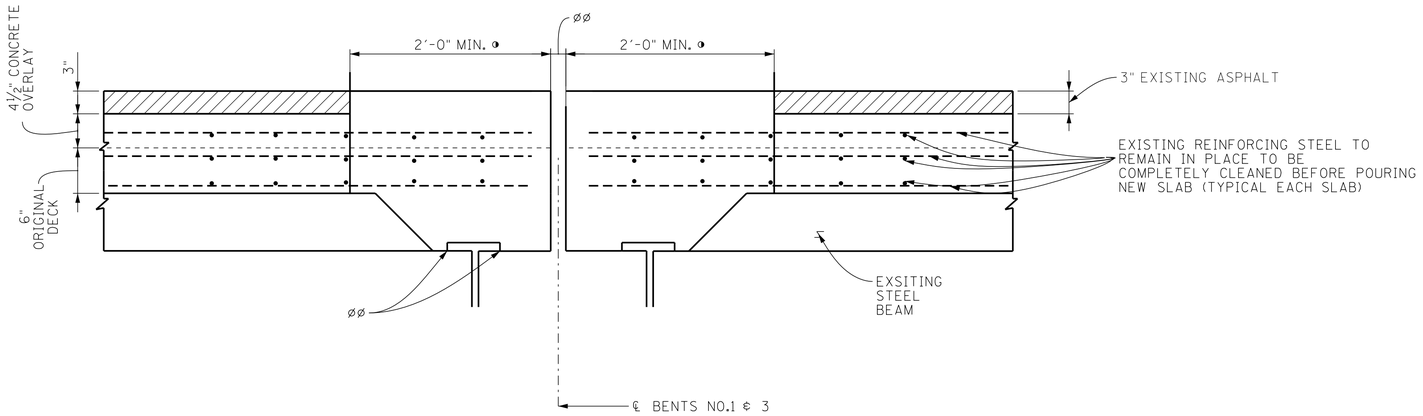
* DENOTES: LIMITS OF CONCRETE REMOVAL AND REPOURING TO BE TO THE EXISTING END STEEL DIAPHRAGM AS SHOWN IN DETAILS. (TYPICAL)

◑ DENOTES: LIMITS OF EXISTING SLAB REMOVAL AND REPOURING.

øø DENOTES: SET EXPANSION JOINT OPENINING 2" AT 60° F. (ACTUAL SETTING AS PER TEMPERATURE CHART ON EXPANSION JOINT SHOP DRAWINGS)

CONCRETE (EXPANSION JOINT REPAIRS)

IF OVERNIGHT LANE CLOSURES ARE PROVIDED FOR THIS PROJECT AND THE LANE CLOSURES ARE SUCH THAT TRAFFIC WILL BE KEPT OFF THE BRIDGE DECK WHERE DECK REPAIRS WILL BE MADE, THEN HIGH EARLY STRENGTH CONCRETE SHALL BE USED WITH A COMPRESSIVE STRENGTH OF 3,000 P.S.I. AT 18 HOURS. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT PROPOSED CONCRETE MIX WILL OBTAIN REQUIRED PROPERTIES. PROOF SHALL BE PROVIDED BY AN INDEPENDENT TESTING COMPANY AND SUBMITTED TO THE MATERIALS AND TESTS DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR APPROVAL. TRAFFIC SHALL NOT BE ALLOWED ON REPAIRED AREAS UNTIL THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF 18 HOURS.



TYPICAL ORIGINAL (OVERLAYED) SECTION @ BENTS 1 & 3 FOR REMOVAL

(SEE SHEET B5 FOR THE LIMITS)

PRELIMINARY USE ONLY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
FOR EXPANSION JOINT REMOVAL
AT BENTS 1 & 3
19-I24-13.79 OVER
NORTH FIRST ST.
DAVIDSON COUNTY
2023

B-6

PIN NO.: 131713.00
DESIGN BY: DATE: / /
DRAWN BY: SILESHI ERGICHO DATE: 05/23
SUPERVISED BY: KEVIN MARTINKO DATE: 05/23
CHECKED BY: DATE: / /

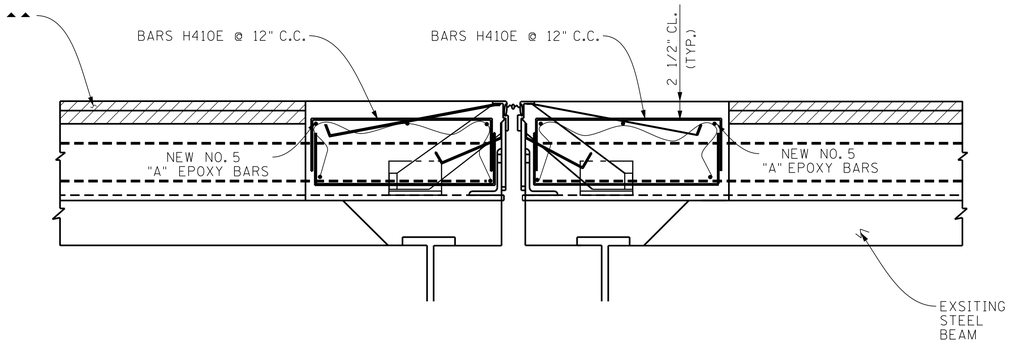
$$$$SYTIMES$$$$$$$
$$$$DGNSPECS$$$$$$$

FEDERAL PROJECT # NH-I24-9(98)

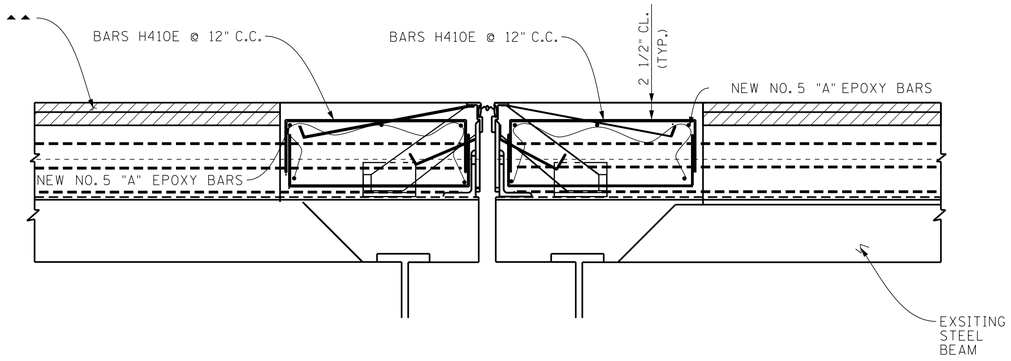
PROJECT NO.	YEAR	SHEET NO.
19I024-M3-010	2023	B-7

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



EXPANSION JOINT DETAIL - TYPE "C"
TYPICAL WIDENED SECTION



EXPANSION JOINT DETAIL - TYPE "C"
TYPICAL ORIGINAL (OVERLAYED)

▲▲ DENOTES: 1¼" TOP LAYER EXISTING ASPHALT TO MILLED AND REPLACED WITH 1¼" NEW ASPHALT. SEE PAVING SCHEDULE.

☞ THE STRIP SEAL EXPANSION JOINT SYSTEM DETAILS ARE INCOMPLETE AS SHOWN THIS SHEET. SEE DRAWING NO. SBR-2-115, SBR-2-116 AND SBR-2-118.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE STRIP SEAL EXPANSION JOINT DETAILS INCLUDING SUPPORT SYSTEM DETAILS, NEW REINFORCING STEEL DETAILS AND SPACING FOR APPROVAL, BEFORE ANY FABRICATION IS BEGUN.

CONTRACTOR SHALL PLACE THE NEW EXPANSION JOINT WITH TEMPORARY SELF ALIGNING GUIDE MEMBERS SEE SPECIAL PROVISION NO. 604S THE PROFILE OF THE CONCRETE POURS AND NEW JOINT SYSTEM SHALL CONFORM TO ROADWAY CROSS SLOPE, SKEW AND GRADE.

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS IN ORDER TO FABRICATE THE EXPANSION DEVICES. SHOP DRAWINGS SHALL BE SUBMITTED TO THE BRIDGE REPAIR OFFICE OF THE DIVISION OF STRUCTURES FOR APPROVAL BEFORE ANY FABRICATION BEGINS.

WHEN REMOVING THE DESIGNATED CONCRETE FOR THE EXPANSION DEVICE, EXTREME CARE SHALL BE TAKEN SO AS NOT TO DAMAGE THE EXISTING LONGITUDINAL REINFORCING STEEL EXISTING LONGITUDINAL STEEL SHALL BE LEFT PROJECTING AND BE INCORPORATED IN WITH THE NEW REINFORCING STEEL. THE EXISTING EXPOSED LONGITUDINAL REINFORCING STEEL SHALL BE COMPLETELY CLEANED BEFORE PLACEMENT OF NEW CONCRETE.

ALL CONCRETE POURS SHALL BE WELL CONSOLIDATED BEHIND AND AROUND THE EXPANSION JOINT STEEL RETAINERS

COST OF ANY MODIFICATIONS NECESSARY TO PROPERLY INSTALL THE EXPANSION JOINTS SHALL BE INCLIDED IN ITEMS BID ON.

COST OF REMOVING THE EXISTING EXPANSION JOINTS AND PLACEMENT OF NEW STRIP SEAL EXPANSION JOINTS, INCLUDING ALL EXISTING CONCRETE REMOVAL, NEW CONCRETE, REINFORCEMENT BARS, LABOR AND ALL MISCELLANEOIUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN THESE PLANS TO THE EXPANSION JOINTS AT BENTS NO. 1 (SPANS 1 & 2) & BENT NO. 3 (SPANS 3 & 4) SHALL BE INCLUDED IN ITEM NO. 604-10.35, EXPANSION JOINT REPAIRS (TYPE "C"), L.F.

PRELIMINARY USE ONLY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
EXPANSION JOINT REPAIRS
DETAILS TYPE "C"
AT BENTS 1 & 3
NORTH FIRST ST.
DAVIDSON COUNTY
2023

PIN NO.: 131713.00
DESIGN BY: DATE: / /
DRAWN BY: SILESHI ERGICHO DATE: 05/23
SUPERVISED BY: KEVIN MARTINKO DATE: 05/23
CHECKED BY: DATE: / /

$$$$$SYTIME$$$$$$$
$$$$DGNSPEC$$$$$$$

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	4-15-85	HMB	ADDED SPECIAL PROVISION 604

CURVE DATA

P.I. = 224+91.34
Δ = 2° 07' 41.71"
D = 0° 28' 40.0"
T = 222.747 FT.
L = 445.443 FT.
R = 11,992 FT.
E = 2.069 FT.
SE = .0156 FT/FT.

P.I. = 238+31.44
Δ = 15° 54' 10"
D = 0°42' 58"
T = 1117.41 FT.
L = 2220.46 FT.
R = 8000 FT.
E = 77.66 FT.
SE = .0156 FT/FT.

● SEE DWG. M-130-2, FOR CONSTRUCTION SEQUENCE

LIST OF DRAWINGS

DRAWING	DWG. No.	LAST REV. DATE
LAYOUT	M-130-1	
GENERAL NOTES	M-130-2	
ESTIMATED QUANTITIES	M-130-3	
SUPERSTRUCTURE	M-130-4	
PLAN OF MAIN REINFORCEMENT	M-130-5	
SLAB PLAN - SPAN No. 1	M-130-6	
SLAB PLAN - SPANS No. 2 & 3	M-130-7	
SLAB PLAN - SPAN No. 4	M-130-8	
FRAMING PLAN	M-130-9	
SUPPORT DIAPHRAGM DETAILS	M-130-10	
INTERMEDIATE DIAPHRAGM DETAILS	M-130-11	
GIRDER DETAILS	M-130-12	
BEARING PAD DETAILS	M-130-13	
JACKING DETAILS	M-130-14	
JACKING DETAILS	M-130-15	
EXPANSION JOINT MOD. DETAILS	M-130-16	
S.S. DETAILS @ ABUTMENT No. 1	M-130-17	
S.S. DETAILS @ ABUT. No. 1 CONTD.	M-130-18	
S.S. DETAILS @ ABUT. No. 1 CONTD.	M-130-19	
S.S. DETAILS @ ABUTMENT No. 2	M-130-20	
S.S. DETAILS @ ABUT. No. 2 CONTD.	M-130-21	
S.S. DETAILS @ ABUT. No. 2 CONTD.	M-130-22	
ABUTMENT No. 1	M-130-23	
ABUTMENT No. 1 CONTD.	M-130-24	
ABUTMENT No. 1 CONTD.	M-130-25	
ABUTMENT No. 2	M-130-26	
ABUTMENT No. 2 CONTD.	M-130-27	
ABUTMENT No. 2 CONTD.	M-130-28	
BENTS No. 1, 2 & 3	M-130-29	
BENTS No. 1, 2 & 3 CONTD.	M-130-30	
BENTS No. 1, 2 & 3 CONTD.	M-130-31	
BENT DETAILS	M-130-32	
EXISTING BENT DETAILS	M-130-33	
BILL OF STEEL	M-130-34	
BILL OF STEEL	M-130-35	
BILL OF STEEL	M-130-36	
BILL OF STEEL	M-130-37	
BILL OF STEEL	M-130-38	

LIST OF STANDARD DRAWINGS

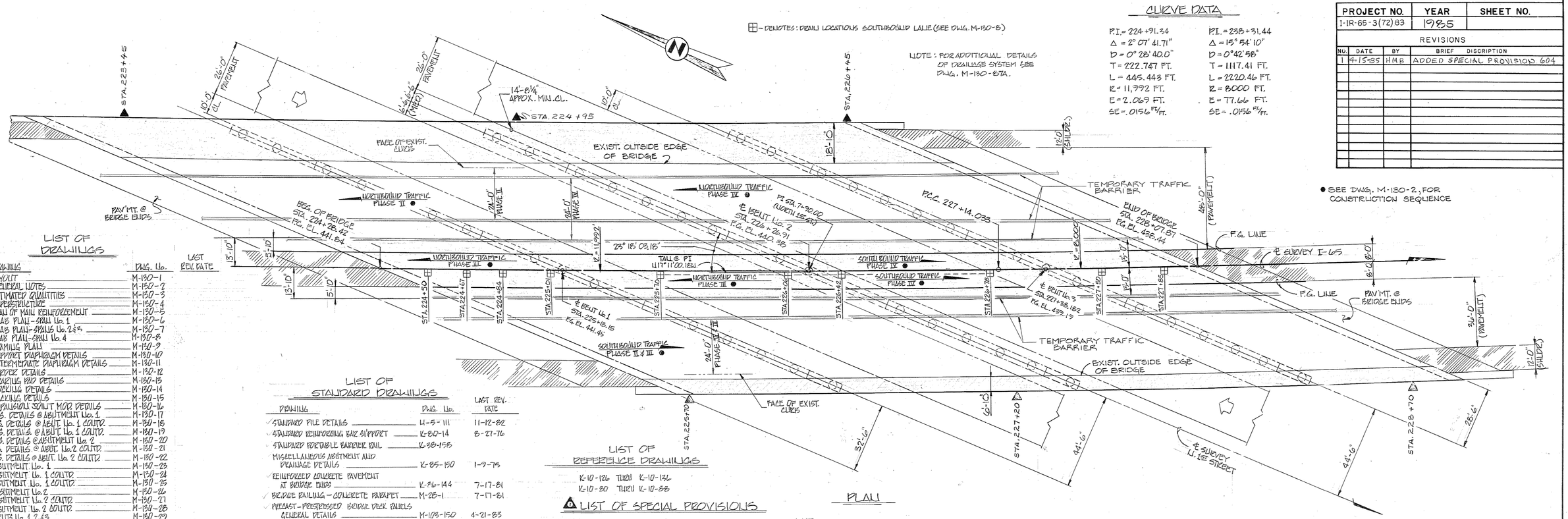
DRAWING	DWG. No.	LAST REV. DATE
STANDARD PILE DETAILS	4-5-111	11-12-82
STANDARD REINFORCING BAR SUPPORT	K-80-14	8-27-76
STANDARD PORTABLE BARRIER RAIL	K-38-158	
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	K-85-150	1-9-75
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	K-86-144	7-17-81
BRIDGE RAILING - CONCRETE PARAPET	M-28-1	7-17-81
PRECAST-PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	M-103-150	4-21-83
PRECAST-PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	M-103-149	4-21-83
STANDARD EXPANSION & EDGE PAVEMENT JOINTS	RP-J-11	7-17-81
STANDARD ELASTIC JOINT SEALS	RP-J-13	
SUPPORT DETAILS FOR LIGHT STANDARDS	M-8-149	11-20-75

LIST OF REFERENCE DRAWINGS

K-10-126 THRU K-10-136
K-10-80 THRU K-10-88

⚠ LIST OF SPECIAL PROVISIONS

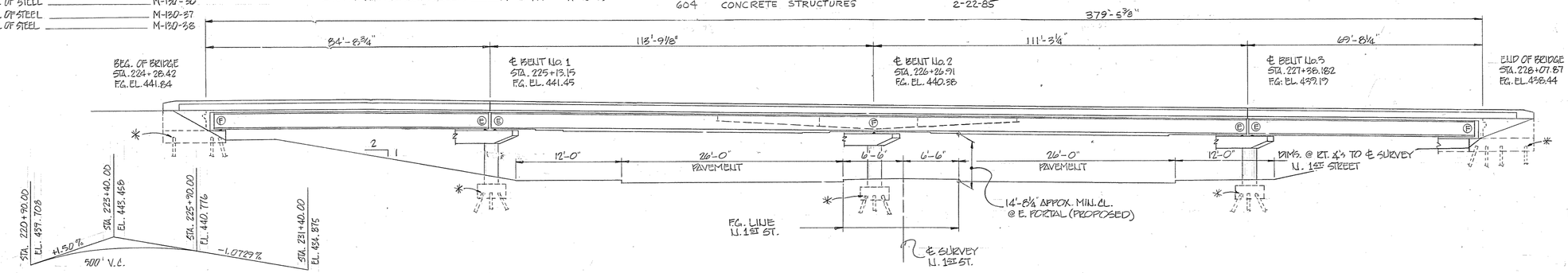
SPECIAL PROVISION No.	REGARDING	LAST REV. DATE
105A	APPROVAL OF SHOP DRAWINGS	9-8-81
602	SECTION 602 - STEEL STRUCTURES	5-31-83
604A	CLASS "A" CONCRETE FOR BRIDGE DECKS	12-20-82
907A	EPOXY COATED REINFORCING STEEL	4-18-83
604	CONCRETE STRUCTURES	2-22-85



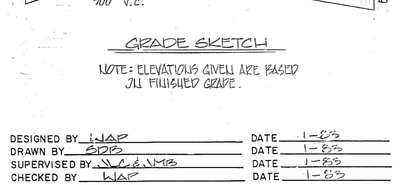
PLAN

△ DENOTES: LOCATION OF LIGHT STANDARD SUPPORTS.

NOTE: TWO 12'-0" TRAFFIC LANES SHALL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES.



ELEVATION
(AT ET. ANGLES TO ℄ SURVEY)



GRADE SKETCH

NOTE: ELEVATIONS GIVEN ARE BASED ON FINISHED GRADE.

✳ - DENOTES: SEE SUBSTRUCTURE DRAWINGS FOR P.C.C. ELEVATIONS.

NOTE.
WIDENING OF SIMPLE SPAN COMPOSITE STEEL ROLLED BEAM/WELDED PLATE GIRDER BRIDGE, MAKING SPANS 2 & 3 CONTINUOUS. SPANS 1 & 4 TO BE LEFT SIMPLE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

LAYOUT (BRIDGE No. 1)
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WAP DATE 1-83
DRAWN BY SDB DATE 1-83
SUPERVISED BY WC & HMB DATE 1-83
CHECKED BY WAP DATE 1-83

CORRECT Clellon L Loveall
APPROVED Fannie Evans

JAMES L. COLLIER — REGISTERED ENGINEER — STATE OF TENN. — 7/20/83

M-130-1

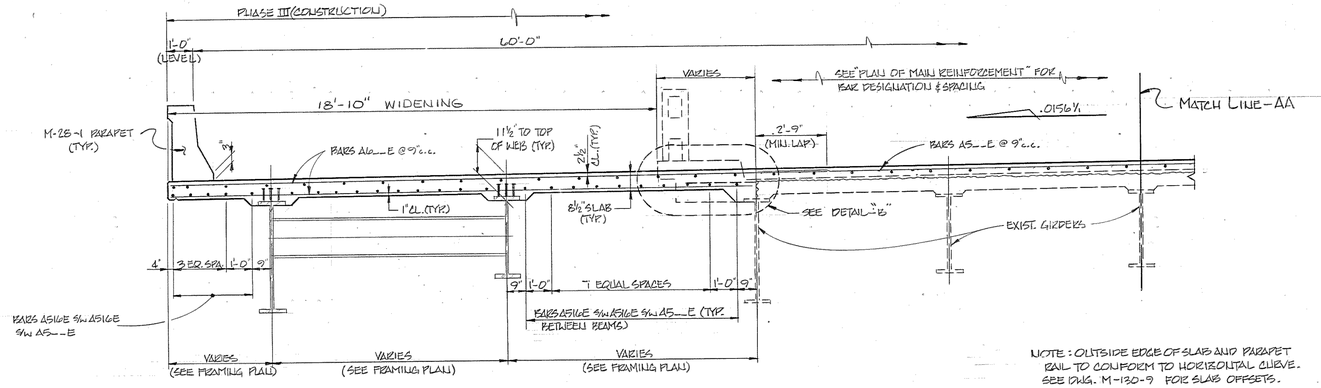
Class "A" Grading "D" 322 c.y.

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

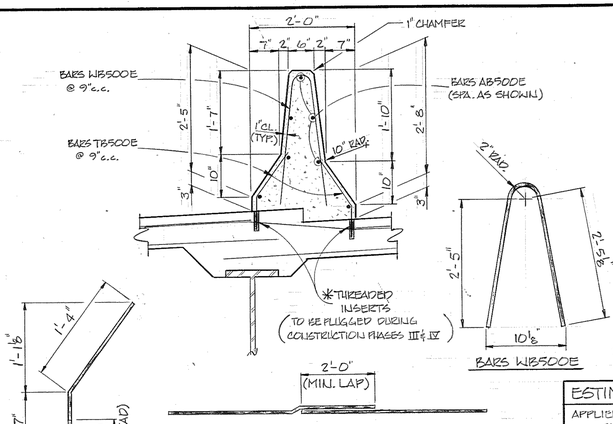
NO.	DATE	BY	BRIEF DESCRIPTION



PART SECTION NEAR MID-SPAN
(TYP. NORTHBOUND LANES - SPANS No. 1 & 4)

NOTE: OUTSIDE EDGE OF SLAB AND PARAPET RAIL TO CONFORM TO HORIZONTAL CURVE. SEE DWG. M-130-9 FOR SLAB OFFSETS.

NOTE: THE CONCRETE DECK SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING AND BOLTING IS COMPLETE.

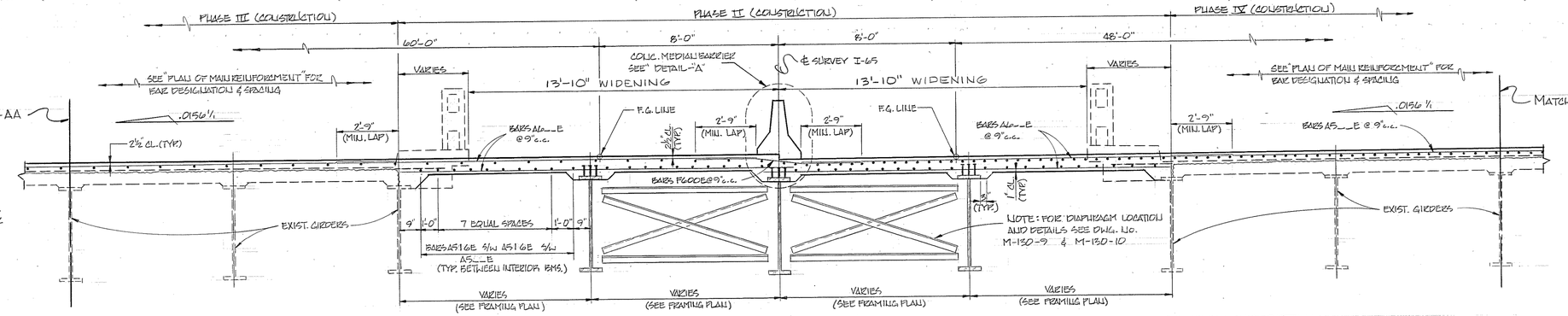


DETAIL "A"
MEDIAN BARRIER RAIL DETAILS

* NOTE: COST OF THREADED INSERTS FOR BARRIER TO BE PAID FOR UNDER ITEM No. 705-08.03

ESTIMATED QUANTITIES (PER FOOT)

APPLIED TEXTURE FINISH (NEW STRUCTURES) SY	CLASS "A" CONCRETE CY	EPOXY COATED REINFORCING STEEL LBS.
.719	.104	19.4

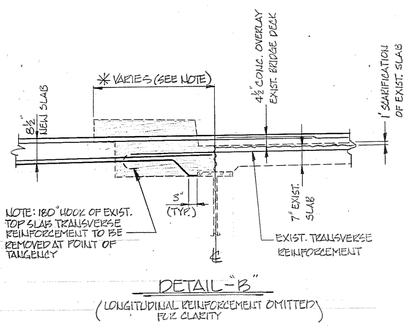


NOTE: WHEN POURING SLAB PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET AND THREADED INSERTS FOR MEDIAN BARRIER RAIL. PARAPET SHALL NOT BE POURED UNTIL SLAB IS POURED AND CURED. SEE DWG. No. M-28-1 FOR PARAPET DETAILS, MEDIAN BARRIER DETAILS THIS SHEET. ALSO SEE CONST. SEQUENCE ON DWG. No. M-130-2.

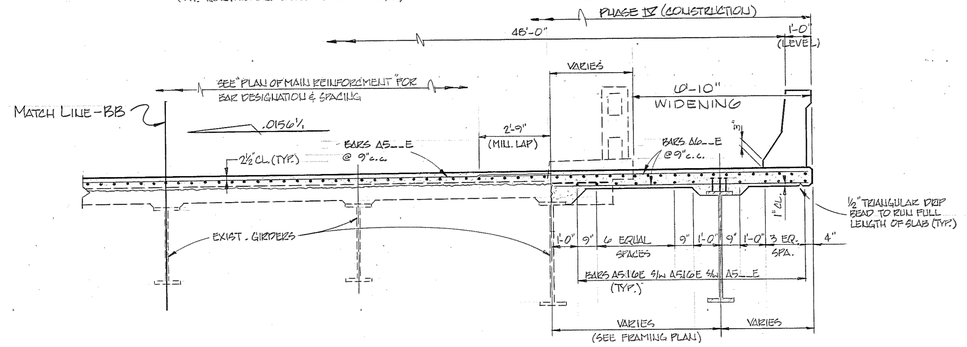
PART SECTION NEAR MID-SPAN
(TYP. NORTHBOUND LANES - SPANS No. 2 & 3)

PART SECTION NEAR SUPPORT
(TYP. SOUTHBOUND LANES - SPANS No. 2 & 3)

TYPICAL CROSS-SECTION



DETAIL "B"
(LONGITUDINAL REINFORCEMENT OMITTED FOR CLARITY)



PART SECTION NEAR SUPPORT
(TYP. SOUTHBOUND LANES - SPANS No. 1 & 4)

* NOTE: EXISTING BRIDGE RAIL, CURB, AND SLAB SHALL BE REMOVED TO THE APPROXIMATE ℄ OF THE EXISTING FASCIA GIRDER. CARE SHALL BE TAKEN TO PRESERVE TRANSVERSE STEEL IN TOP OF EXISTING SLAB. ALL SALVABLE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

NOTES

APPROVAL OF MATERIALS: NO FABRICATION SHALL BE STARTED UNTIL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS.

IDENTITY OF MAIN MATERIALS: SEE SPECIAL PROVISION No. 602.

STRUCTURAL STEEL: SHALL CONFORM TO AASHTO M 183 (ASTM A36) UNLESS OTHERWISE NOTED. ALL STRUCTURAL STEEL FOR GIRDER FLANGES IN TENSION AND ALL WEBS SHALL MEET THE SUPPLEMENTAL REQUIREMENTS FOR LONGITUDINAL CHARPY V-NOTCH TESTS SPECIFIED IN AASHTO MATERIAL SPECIFICATIONS. ZONE 2 OF TABLE 51 SHALL APPLY.

WELDING: ANSI D1.1-80 STRUCTURAL WELDING CODE. AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, THIRD EDITION, 1981, AND SPECIAL PROVISION No. 602.

FIELD CONNECTIONS: SHALL BE ⅞" ∅ HIGH TENSILE STRENGTH BOLTS ASTM A325 UNLESS OTHERWISE NOTED. SEE AASHTO SPECIFICATIONS ART. 2.10.20. ALL HIGH STRENGTH BOLTED CONNECTIONS ARE FRICTION TYPE.

ADDITIONAL SHOP SPLICE NOTE: SHOP SPLICES UNNECESSARY DUE TO LENGTHS OR SIZE OF MATERIAL INVOLVED MAY BE LOCATED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER.

ADDITIONAL FIELD SPLICE NOTE: FIELD SPLICES UNNECESSARY DUE TO LENGTHS INVOLVED MAY BE LOCATED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER.

SHOP ASSEMBLY: PROGRESSIVE SHOP ASSEMBLY WILL BE ALLOWED. SEE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, ART. 2.10.14 (b).

UNLESS OTHERWISE NOTED, SEE AASHTO SPECIFICATIONS ART. 1.T.21 FOR MINIMUM SIZE OF FILLET WELD.

ESTIMATED QUANTITIES

CLASS "A" CONCRETE (BRIDGE DECK) (CY)	EPOXY COATED REINFORCING STEEL LBS.	STEEL BAR REINFORCEMENT LBS.
1202.1	246,343	7,763

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY	WAP	DATE 2-83
DRAWN BY	SDB	DATE 2-83
SUPERVISED BY	WAP & JMB	DATE 2-83
CHECKED BY	WAP	DATE 6-83

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

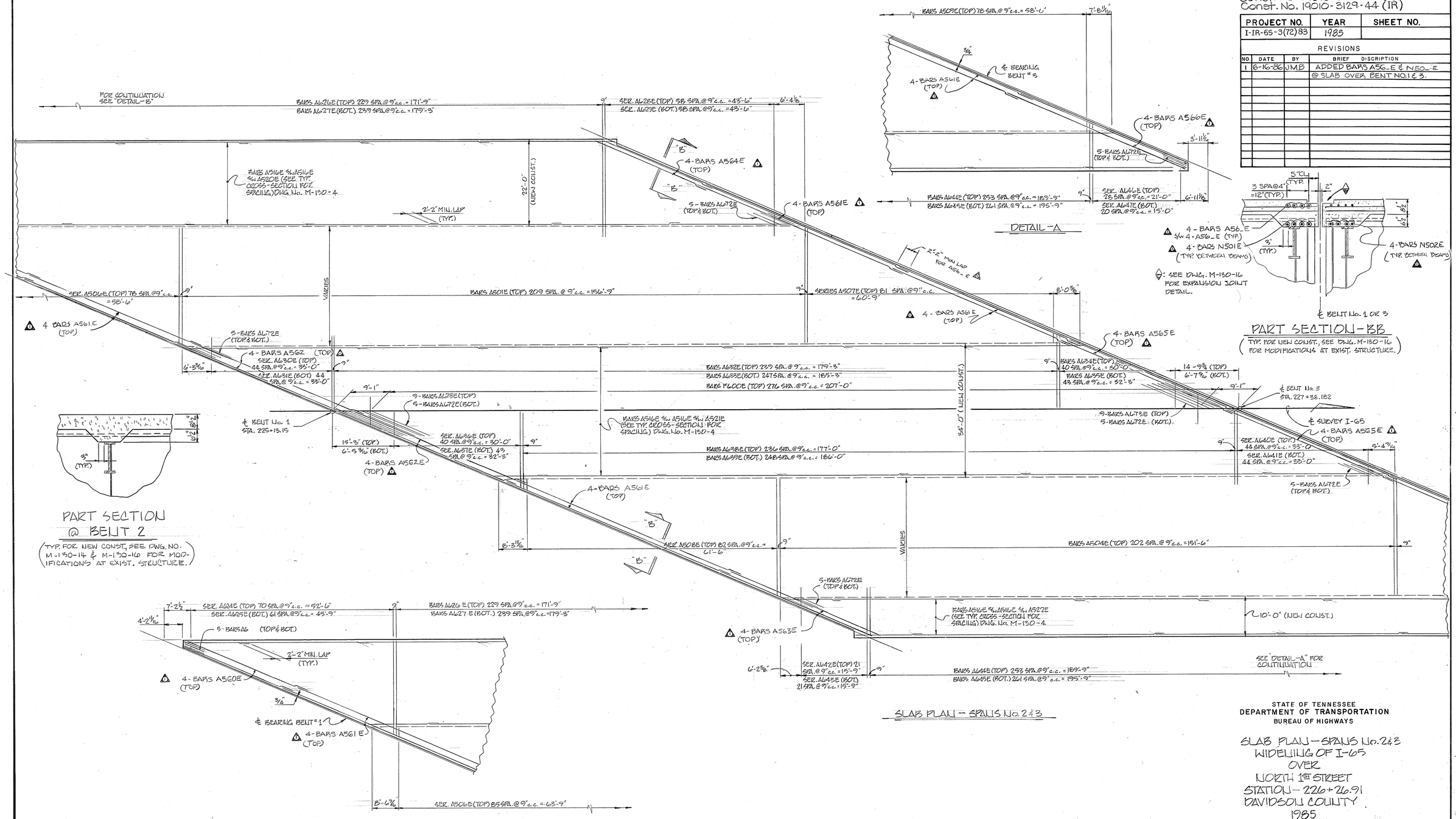
M-130-4

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	6-16-86	JMB	ADDED BARS A56_E & N50_E @ SLAB OVER BENT NO.1 & 3.



DESIGNED BY WAP DATE 3-83
DRAWN BY SDB DATE 3-83
SUPERVISED BY W.A.P. & J.M.B. DATE 3-83
CHECKED BY WAP DATE 6-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SLAB PLAN - SPANS No. 2 & 3
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L. Fowinkle

APPROVED Lewis Evans

M-130-7

Const. No. 19010-3124-44 (1)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-1-86	JMB	REVISED BEAM LENGTHS: BEAMS A1, A2, C3,C4, C5 AND REVISED DIM. "B" AT BENT #2
2	7-18-86	JMB	ADDED DEAD LOAD CAMBER.
3	8-7-86	JMB	COMPLETED DEAD LOAD CAMBER.

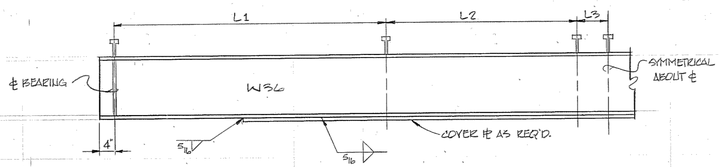
STRINGER SCHEDULE-(ROLLED SHAPES)

MARK	STRINGERS BEAM SIZE	STRINGERS BOT. COVER PL.	CTR. TO CTR. BEARINGS *	CAMBER ¼ PT.	CAMBER ½ PT.	STUD SPACING * L1	STUD SPACING * L2	STUD SPACING * L3
A2	W36×160	11"×1⅜"×56'-6"	80'-2⅜" 1	2"	2⅝"	19@1'-0"=19'-0"	12@1'-8"=20'-0"	1@ 1'-1⅞" 1
A3	W36×160	11"×1⅜"×55'-0"	77'-6⅛"	1¾"	2½"	19@1'-0"=19'-0"	11@1'-8"=18'-4"	1@ 1'-5¹¹⁄₁₆"
A4	W36×160	11"×1⅜"×55'-0"	77'-6⅛"	1¾"	2½"	19@1'-0"=19'-0"	11@1'-8"=18'-4"	1@ 1'-5¹¹⁄₁₆"
A5	W36×160	11"×1⅜"×55'-0"	77'-6⅛"	1¾"	2½"	19@1'-0"=19'-0"	11@1'-8"=18'-4"	1@ 1'-5¹¹⁄₁₆"
C2	W36×135	11"×¾"×44'-0"	63'-2"	1⅝"	1⅝"	17@1'-0"=17'-0"	8@1'-8"=13'-4"	2@ 1'-1½"
C3	W36×135	11"×¾"×43'-0"	63'-0⅜" 1	1"	1⅞"	17@1'-0"=17'-0"	7@1'-8"=11'-8"	2@ 1'-5¹¹⁄₁₆" 1
C4	W36×135	11"×¾"×43'-0"	63'-0¹⁵⁄₁₆" 1	1"	1⅞"	17@1'-0"=17'-0"	7@1'-8"=11'-8"	2@ 1'-5¹¹⁄₁₆" 1
C5	W36×135	11"×¾"×43'-0"	63'-0¹⁵⁄₁₆" 1	1"	1⅞"	17@1'-0"=17'-0"	7@1'-8"=11'-8"	2@ 1'-5¹¹⁄₁₆" 1

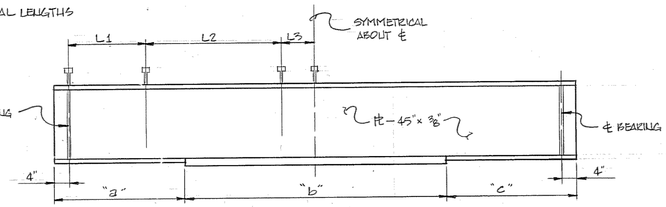
GIRDER SCHEDULE (SIMPLE SPANS)

MARK	CTR. TO CTR. BEARINGS *	CAMBER ¼ PT.	CAMBER ½ PT.	STUD SPACING * L1	STUD SPACING * L2	STUD SPACING * L3
A1	80'-2⅜" 1	1⅝"	2⅛"	15@1'-0"=15'-0"	15@1'-8"= 25'-0"	
A6	75'-9⅜"	1"	1⅜"	15@1'-0"=15'-0"	13@1'-8"= 21'-8"	1@ 1'-2⅞"
C1	65'-2"	¾"	1⅛"	13@1'-0"=13'-0"	11@1'-8"= 18'-4"	1@ 1'-5"
C6	61'-8⅛"	½"	¾"	13@1'-0"=13'-0"	10@1'-8"=16'-8"	1@ 0'-11½"

* - DENOTES: HORIZONTAL LENGTHS



STRINGER ELEVATION
(FOR STRINGERS A2,A3,A4,A5,C2,C3,C4,& C5)



A1

	"a"	"b"	"c"
TOP FL.	12"×¾"×80'-10⅜" 1		
WEB PL.	45"×⅜"×80'-10⅜" 1		
BOT. FL.	16"×⅞"×16'-4"	16"×1½"×48'-2⅜"	16"×⅞"×16'-4"
STIFFENER SPA.	1@1'-10", 21 EQ.SPA.= 40'-6⅜", 1@1'-10"		

A6

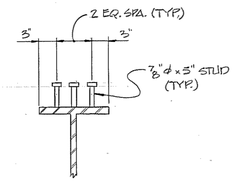
	"a"	"b"	"c"
TOP FL.	12"×¾"×76'-5⅜"		
WEB PL.	45"×⅜"×76'-5⅜"		
BOT. FL.	16"×⅞"×14'-2½"	16"×1½"×48'-0⅜"	16"×⅞"×14'-2½"
STIFFENER SPA.	1@1'-10", 20 EQ.SPA.= 38'-1¾", 1@1'-10"		

C1

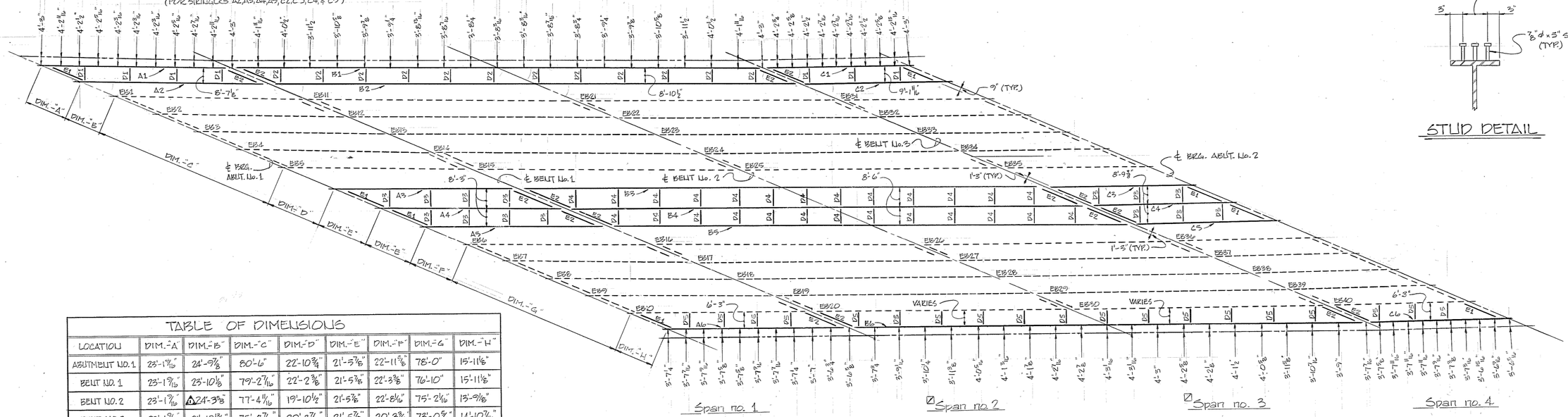
	"a"	"b"	"c"
TOP FL.	12"×¾"×65'-10"		
WEB PL.	45"×⅜"×65'-10"		
BOT. FL.	16"×¾"×13'-4"	16"×1⅝"×39'-2"	16"×¾"×13'-4"
STIFFENER SPA.	1@1'-10", 17 EQ.SPA.=32'-6", 1@1'-10"		

C6

	"a"	"b"	"c"
TOP FL.	12"×⅞"×61'-11⅛"		
WEB PL.	45"×⅜"×61'-11⅛"		
BOT. FL.	16"×¾"×11'-4½"	16"×1⅝"×39'-2⅛"	16"×⅝"×11'-4½"
STIFFENER SPA.	1@1'-10", 16 EQ.SPA.=30'-7⅛", 1@1'-10"		



STUD DETAIL



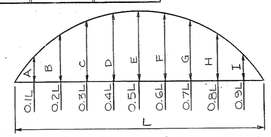
FRAMING PLAN

TABLE OF DIMENSIONS

LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"	DIM. "H"
ABUTMENT NO. 1	23'-1⅞"	24'-5⅞"	80'-6"	22'-10¾"	21'-5⅞"	22'-11⅝"	78'-0"	15'-11⅛"
BENT NO. 1	23'-1⅞"	23'-10⅛"	79'-2⅞"	22'-2⅜"	21'-5⅞"	22'-3⅝"	76'-10"	15'-11⅛"
BENT NO. 2	23'-1⅞"	24'-3⅝" 1	77'-4⅛"	19'-10½"	21'-5⅜"	22'-8⅛"	75'-2⅛"	13'-9⅛"
BENT NO. 3	23'-1⅞"	21'-10¹³⁄₁₆"	75'-8⅞"	20'-3⅞"	21'-5⅜"	20'-3⅞"	73'-0⅝"	14'-10⅞"
ABUTMENT NO. 2	23'-1⅞"	21'-4"	74'-7⅛"	19'-6⅝"	21'-5⅛"	19'-6½"	71'-9⅝"	14'-10⅞"

STRINGER SKEW ANGLES

MARK	ANGLE	MARK	ANGLE	MARK	ANGLE
A1	21°52'53.38"	B1	22°33'42.15"	C1	23°16'28.73"
A2	21°52'53.38"	B2	22°33'42.15"	C2	23°16'28.73"
A3	22°34'14.99"	B3	23°17'53.97"	C3	24°07'9.50"
A4	22°34'14.99"	B4	23°17'53.97"	C4	24°07'9.50"
A5	22°34'14.99"	B5	23°17'53.97"	C5	24°07'9.50"
A6	23°06'18.20"	B6	24°00'41.40"	C6	24°51'27.70"



DEAD LOAD CAMBER 3

NOTE: THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS APPLIED AFTER SLAB IS IN PLACE AND SHALL BE CORRECTED FOR EFFECTS DUE TO VERTICAL CURVE.

BEAM	DIMENSION (INCHES) A	B	C	D	E	F	G	H	I	
A1,	5/8	1 1/4	1 11/16	1 15/16	2 1/16	1 15/16	1 11/16	1 1/4	5/8	3
A3, A4, A5	1	1 5/16	1 7/8	2 5/16	2 1/4	2 5/16	1 7/8	1 5/16	1	
A6	1/2	15/16	1 1/4	1 1/2	1 9/16	1 1/2	1 1/4	15/16	1/2	3
C1,	5/16	5/8	13/16	1	1	1	13/16	5/8	5/16	3
C3, C4, C5	5/16	13/16	1 1/8	1 1/4	1 3/8	1 1/4	1 1/8	1 5/16	9/16	
C6	1/4	7/16	9/16	1 1/16	1 1/16	1 1/16	9/16	7/16	1/4	3
A2	7/8	1 11/16	2 5/16	2 11/16	2 7/8	2 11/16	2 5/16	1 11/16	7/8	3
C2	1/2	15/16	1 5/16	1 9/16	1 5/8	1 9/16	1 5/16	15/16	1/2	3

2 - NOTE: BEARING DEVICES AT EXISTING BEAMS EB11 THRU EB30, ARE TO BE REMOVED, CLEANED, AND REMOUNTED AT OPPOSITE ENDS OF EXISTING BEAMS. THE "ED" TYPE DEVICES TO BE USED AT BENTS No. 1 & 3. THE "FD" TYPE DEVICES TO BE USED AT BENT No. 2. (SEE DWG. M-130-15)

NOTES:

1. SEE DWGS. M-130-4 & M-130-11 FOR ADDITIONAL NOTES.
2. SEE DWG. M-130-12 FOR DETAILS OF CURVILINEAR GIRDERS.
3. SEE DWGS. M-130-10 & M-130-11 FOR DETAILS OF DIAPHRAGMS AND STIFFENERS.
4. SEE DWGS. M-130-14 THRU M-130-16 FOR DETAILS OF MODIFICATIONS TO EXIST. GIRDERS.
5. LOCATION OF INTERMEDIATE STIFFENERS MAY BE VARIED TO MATCH DIAPHRAGMS, OR STIFFENERS MAY ADDED TO CONNECT DIAPHRAGMS TO GIRDERS WHICHEVER IS PREFERABLE. STIFFENERS THUS ADDED ARE TO BE USED IN PAIRS EXCEPT AT FASCIA GIRDERS. DIAPHRAGM SPACING SHALL NOT EXCEED 20'-0". STIFFENER SPACING SHALL NOT EXCEED 3'-9".
6. CONTRACTOR TO VERIFY EXISTING DIMENSIONS PRIOR TO FABRICATING STEEL MEMBERS.

DESIGNED BY WAP DATE 3-85
DRAWN BY SDS DATE 4-85
SUPERVISED BY JLC & JMB DATE 4-85
CHECKED BY _____ DATE _____

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

FRAMING PLAN
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 220+ 26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

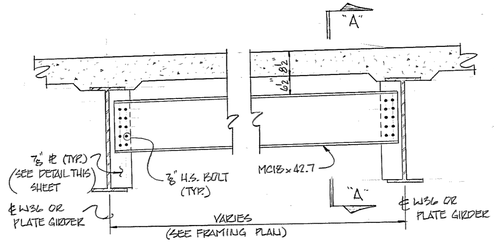
M-130-9

CONST. NO. 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

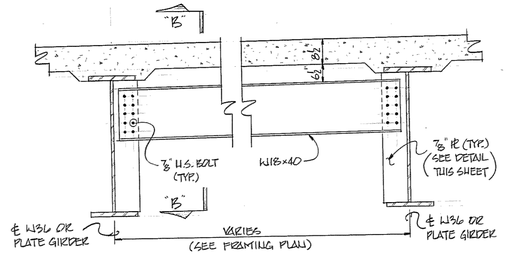
REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION



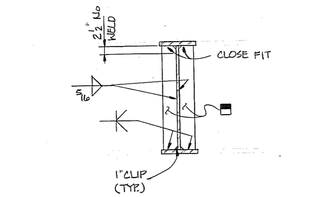
SUPPORT DIAPHRAGM-TYPE-E1

(TYP. AT ABUTMENTS No. 1&2)



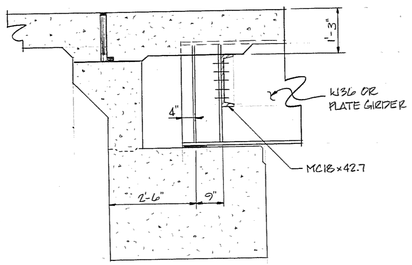
SUPPORT DIAPHRAGM-TYPE-E2

(TYP. AT BENTS No. 1&3)

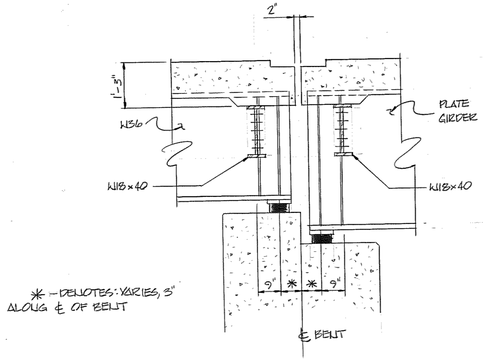


BEARING STIFFENER DETAIL

■ DENOTES;
FOR ROLLED SHAPES USE PL's ½"×5½"×2'-10"
FOR ℄ GIRDERS (SPANS No. 1&4) USE PL's 9/16"×5 3/4"×3'-9"
FOR ℄ GIRDERS (SPANS No. 2&3);
@ END SUPPORTS USE PL's 13/16"×5 3/4"×3'-9"
@ INTERIOR SUPPORTS USE PL's 1"×10 5/8"×3'-9"

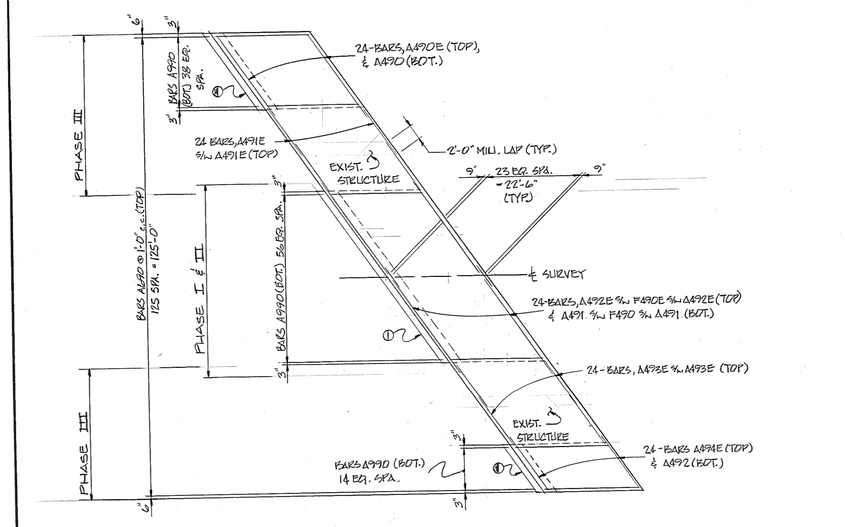


SECTION-AA



*-DENOTES: VARIES, 3" ALONG ℄ OF BENT

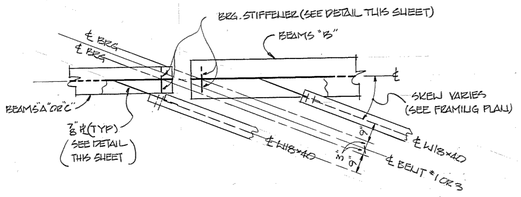
SECTION-"BB"



①-DENOTES: FOOTING REQ'D SEE DWG. No. K-86-144.

PLAN

PAVEMENT AT BRIDGE ENDS

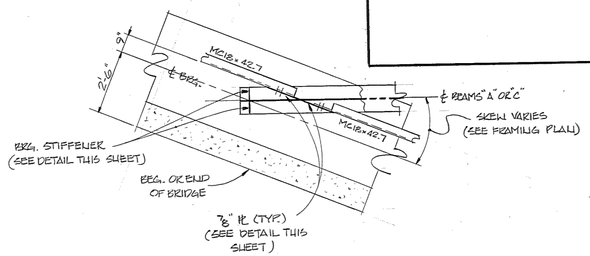


STIFFENER DETAIL AT SUPPORT DIAPHRAGMS

(BOLT HOLES OMITTED FOR CLARITY)

PART PLAN @ SUPPORT DIAPHRAGMS TYPE-E2

SEE FRAMING PLAN FOR LOCATIONS



PART PLAN @ SUPPORT DIAPHRAGMS TYPE-E1

(SEE FRAMING PLAN)

DESIGNED BY WAF DATE 5-83
DRAWN BY SDIS DATE 6-83
SUPERVISED BY JLC & JMB DATE 6-83
CHECKED BY WAF DATE 6-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPPORT DIAPHRAGM DETAILS WIDENING OF I-65 OVER NORTH 1ST STREET STATION- 226+26.91 DAVIDSON COUNTY 1985

CORRECT Clellon L Loveall

APPROVED Lewis Evans

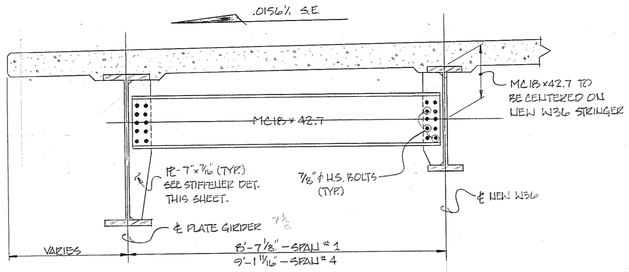
M-130-10

CONST. No. 19010-3124-44 (I)
CONST. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

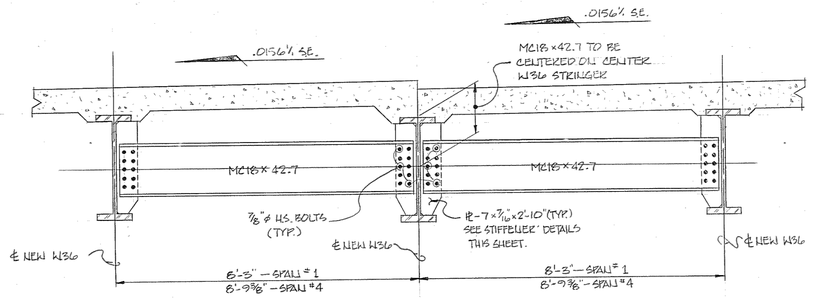
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



INTERMEDIATE DIAPHRAGM - TYPE - D1

(EAST SIDE - SPANS No. 1 & 4)



INTERMEDIATE DIAPHRAGM - TYPE - D3

(MEDIAN AREA - SPANS No. 1 & 4)

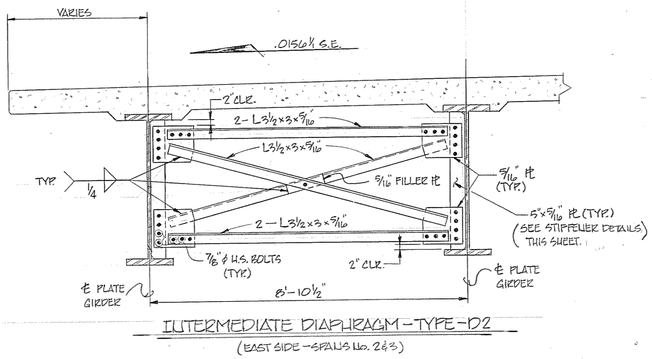
NOTES:

STRUCTURAL STEEL: SHALL CONFORM TO AASHTO M 183 (ASTM A36) UNLESS NOTED OTHERWISE.

WELDING: ANSI D1.1-80 STRUCTURAL WELDING CODE, AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, THIRD EDITION, 1981, AND SPECIAL PROVISION No. 602.

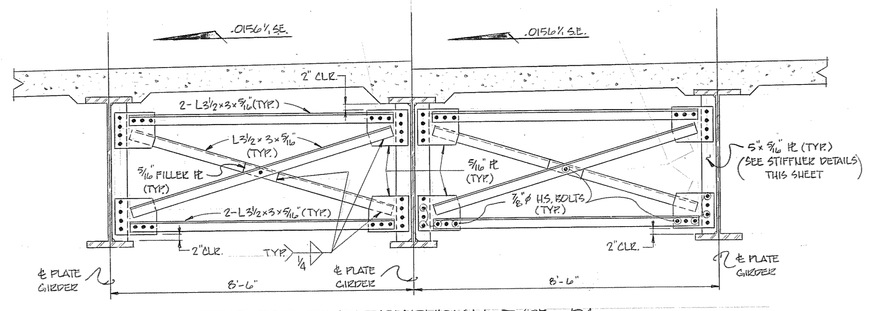
FIELD CONNECTIONS: SHALL BE 7/8"ø HIGH TENSILE STRENGTH BOLTS ASTM-A325 UNLESS NOTED OTHERWISE SEE AASHTO SPECIFICATIONS ART. 2.10.20. ALL HIGH STRENGTH BOLTED CONNECTIONS ARE FRICTION TYPE.

SHOP ASSEMBLY: PROGRESSIVE SHOP ASSEMBLY WILL BE ALLOWED SEE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, ART. 2.10.14 (b).



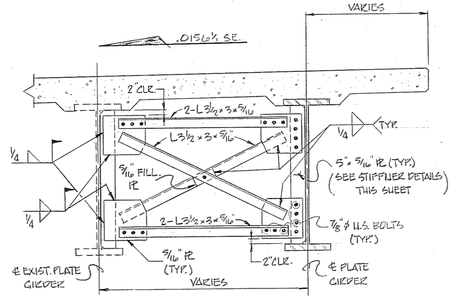
INTERMEDIATE DIAPHRAGM - TYPE - D2

(EAST SIDE - SPANS No. 2 & 3)



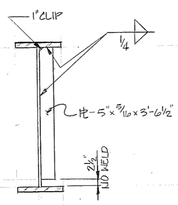
INTERMEDIATE DIAPHRAGM - TYPE - D4

(MEDIAN AREA - SPANS No. 2 & 3)

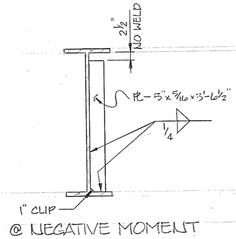


INTERMEDIATE DIAPHRAGM - TYPE - D5

(WEST SIDE - SPANS No. 1, 2, 3, & 4)



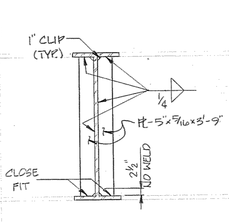
@ POSITIVE MOMENT REGIONS



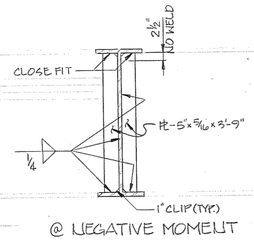
@ NEGATIVE MOMENT REGIONS

INTEMEDIATE STIFFENER DETAILS

NOTES: ① INTERMEDIATE STIFFENERS TO BE USED IN PAIRS ON INTERIOR STRINGERS.
② ON FASCIA STRINGERS, INTERMEDIATE STIFFENERS TO BE USED ON INSIDE FACE ONLY.
③ FABRICATOR TO COMPENSATE FOR BENDING DURING FABRICATION CAUSED BY STIFFENERS ON ONE SIDE.



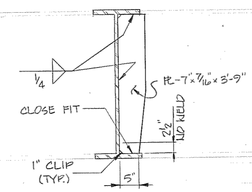
@ POSITIVE MOMENT REGIONS



@ NEGATIVE MOMENT REGIONS

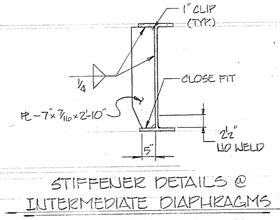
STIFFENER DETAILS @ INTERMEDIATE DIAPHRAGMS

NOTES: ① TYPICAL FOR ALL PLATE GIRDERS EXCEPT, EAST FASCIA GIRDERS SPANS No. 1 & 4.
② BOLT HOLES OMITTED FOR CLARITY
③ STIFFENERS AT EXISTING FASCIA GIRDER (WEST SIDE) TO BE FIELD WELDED.
④ STIFFENERS TO BE USED ON ILISIDE FACE ONLY AT FASCIA GIRDERS



STIFFENER DETAILS @ INTERMEDIATE DIAPHRAGMS

(TYPICAL @ EAST FASCIA GIRDER SPANS No. 1 & 4 ONLY. BOLT HOLES OMITTED FOR CLARITY)



STIFFENER DETAILS @ INTERMEDIATE DIAPHRAGMS

(TYPICAL FOR INTERIOR W-SECTIONS SPANS No. 1 & 4. BOLT HOLES OMITTED FOR CLARITY.)

DESIGNED BY KIAP DATE 3-83
DRAWN BY SDB DATE 3-83
SUPERVISED BY JLC & JMB DATE 3-83
CHECKED BY KIAP DATE 6-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

INTERMEDIATE DIAPHRAGM DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Foxwell
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

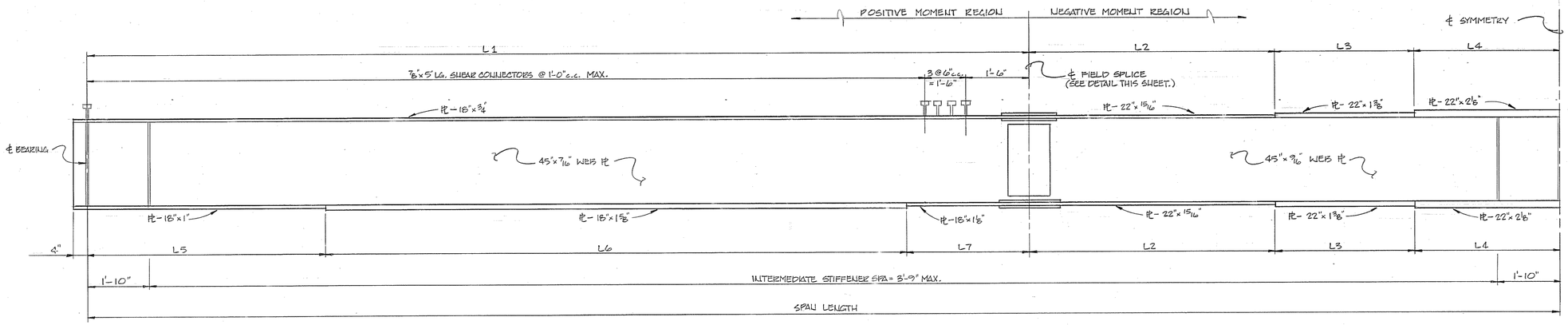
M-130-11

CONST. NO. 19010-3124-44 (1)
CONST. NO. 19010-3129-44 (1R)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

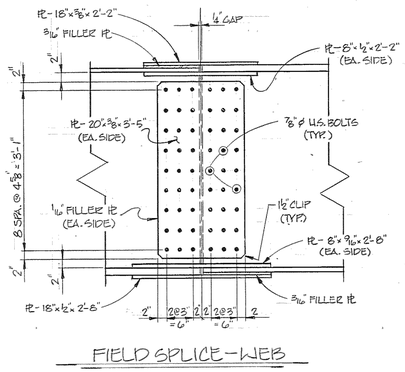
NO.	DATE	BY	BRIEF DESCRIPTION
1	1-1-86	JMB	REVISED BEAM LENGTH OF BEAMS B1 & B2 AND ADJUSTED DIM. "L1" & "L5"



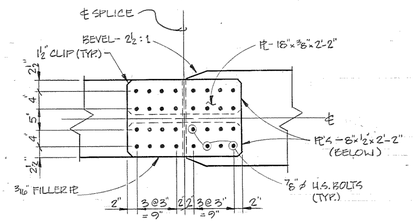
GIRDER ELEVATION
(FOR GIRDERS B1 THRU B6)

GIRDER SCHEDULE – (CONTINUOUS SPANS)

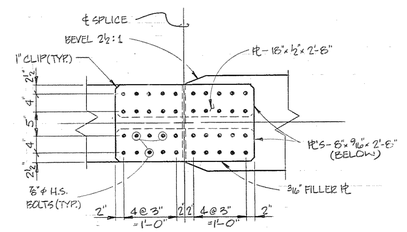
MARK	LENGTH	L1	L2	L3	L4	L5	L6	L7
B1 ⚠1	115'-2 15/16"	80'-7 15/16" ⚠1	17'-3"	8'-1"	9'-3"	20'-0 5/16" ⚠1	49'-1"	11'-6"
B2 ⚠1	115'-2 15/16"	80'-7 15/16" ⚠1	17'-3"	8'-1"	9'-3"	20'-0 5/16" ⚠1	49'-1"	11'-6"
B3	111'-10 1/2"	76'-4"	16'-8 1/2"	7'-10"	9'-0"	19'-7"	47'-1"	11'-2"
B4	111'-10 1/2"	76'-4"	16'-8 1/2"	7'-10"	9'-0"	19'-7"	47'-7"	11'-2"
B5	111'-10 1/2"	76'-4"	16'-8 1/2"	7'-10"	9'-0"	19'-7"	47'-7"	11'-2"
B6	108'-9"	76'-1"	16'-4"	7'-7"	8'-9"	19'-1"	46'-2"	10'-10"



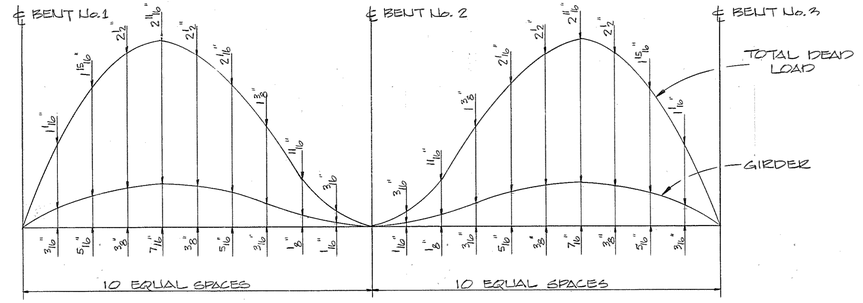
FIELD SPLICE – WEB



FIELD SPLICE – TOP FLANGE



FIELD SPLICE – BOT. FLANGE



DEAD LOAD CORRECTION CURVE

NOTE: GIRDERS TO BE CAMBERED FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GIRDER DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WAP DATE 4-85
DRAWN BY EDP DATE 4-85
SUPERVISED BY WAP & JMB DATE 4-85
CHECKED BY WAP DATE

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-130-12

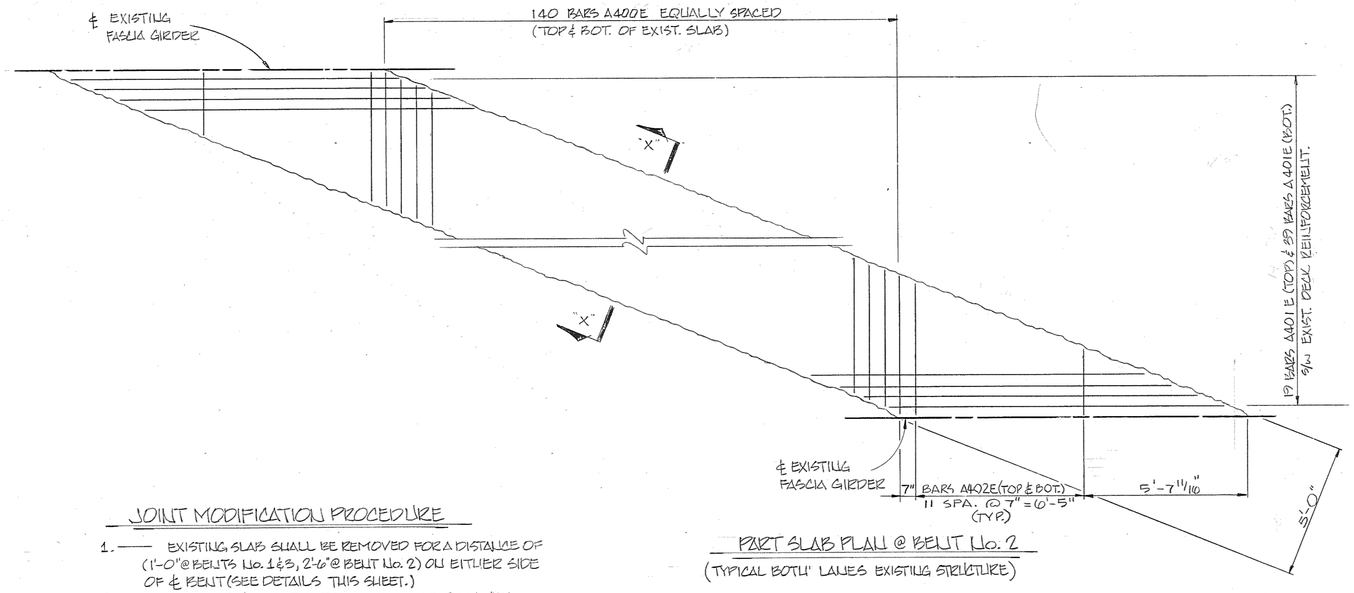
CONST. NO. 19010-3124-44 (1)
CONST. NO. 19010-3129-44 (1R)

PROJECT NO.	YEAR	SHEET NO.
1-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6/16/86	JMB	ADDED BARS A56-E S/W A56-E
			& BARS N50-E @ SLAB OVER
			BENT NO. 1 & 3

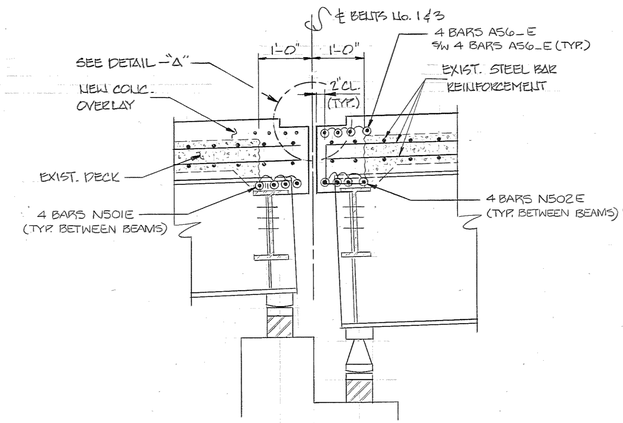
NOTE: ACCEPTABLE ALTERNATES FOR EXPANSION JOINT INCLUDE THE FOLLOWING; DELASTIFLEX CP-200, QUIFLEX 25, OR STEELFLEX RS200 MAXIMUM ALLOWABLE TOTAL MOVEMENT TO BE A MINIMUM OF 2". SEE NOTE NO. 21 ON DRAWING NO. M-130-3.



PART SLAB PLAN @ BENT No. 2
(TYPICAL BOTH LANES EXISTING STRUCTURE)

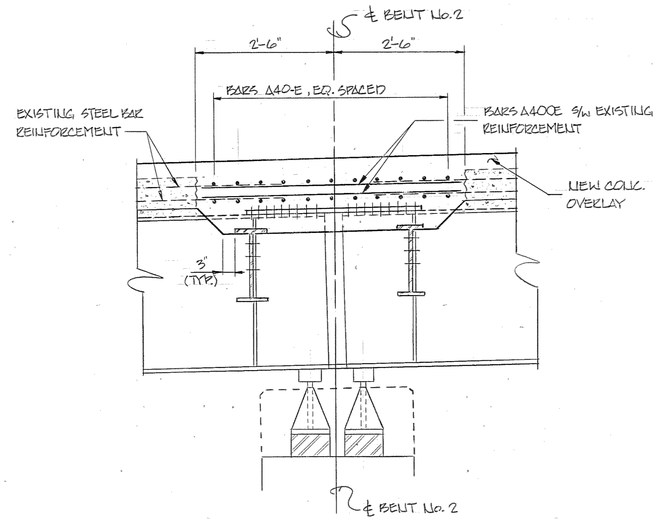
JOINT MODIFICATION PROCEDURE

1. —— EXISTING SLAB SHALL BE REMOVED FOR A DISTANCE OF (1'-0" @ BENTS No. 1 & 3, 2'-6" @ BENT No. 2) ON EITHER SIDE OF ℄ BENT (SEE DETAILS THIS SHEET.)
2. —— ALL EXISTING JOINT MATERIAL SHALL BE REMOVED.
3. —— SPLICE EXISTING BEAMS @ BENT No. 2 AS SHOWN ON DRAWING No. M-130-14 AND PLACE NEW STEEL BAR REINFORCEMENT AS SHOWN THIS SHEET.
4. —— CONCRETE FOR JOINT MODIFICATION SHALL BE POURED CONCURRENTLY WITH SLAB.



NOTE: CARE SHALL BE TAKEN TO PRESERVE EXISTING STEEL BAR REINFORCEMENT DURING SLAB REMOVAL OPERATIONS.

EXPANSION JOINT DETAILS ⚠1
(AT ET. X's TO ℄ OF BENT)
(REINFORCING STEEL OVER EXIST. DECK OMITTED FOR CLARITY EXCEPT FOR EDGE BEAM REINF.



SECTION -- "XX"

DESIGNED BY WAP DATE 4-85
DRAWN BY SWB DATE 4-85
SUPERVISED BY WLC & WAP DATE 4-85
CHECKED BY WAP DATE 6-85

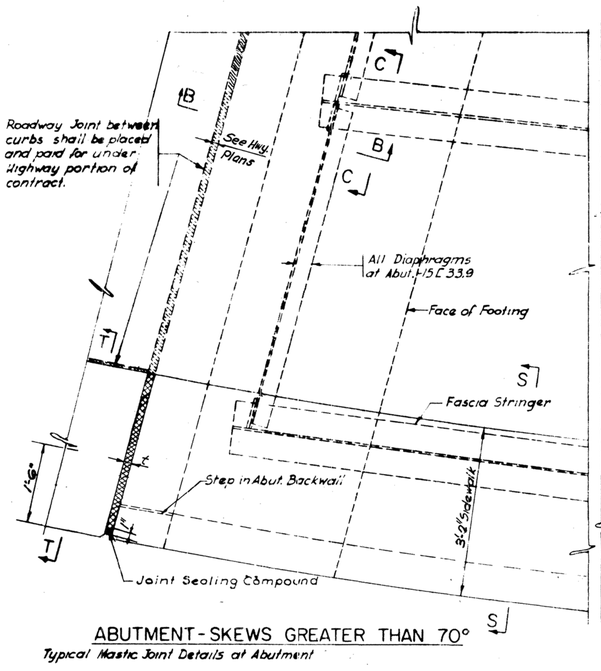
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

EXPANSION JOINT MODIFICATION DETAILS
WIDENING OF I-65 OVER NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

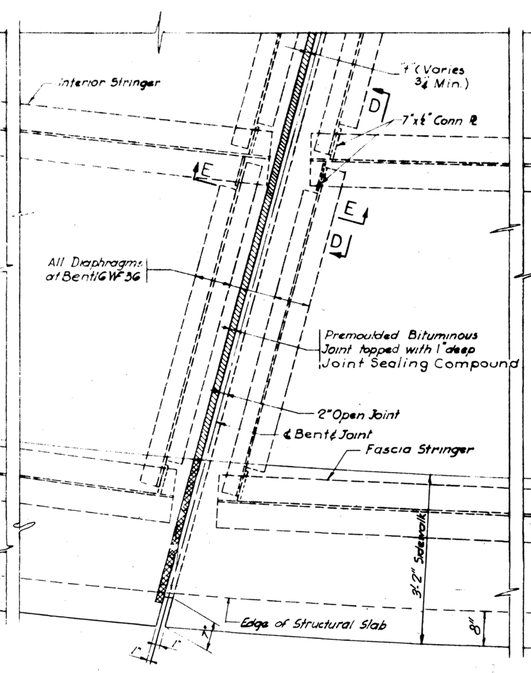
M-130-16

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 PT. II	19 61	8	77
CONTRACT NO.					



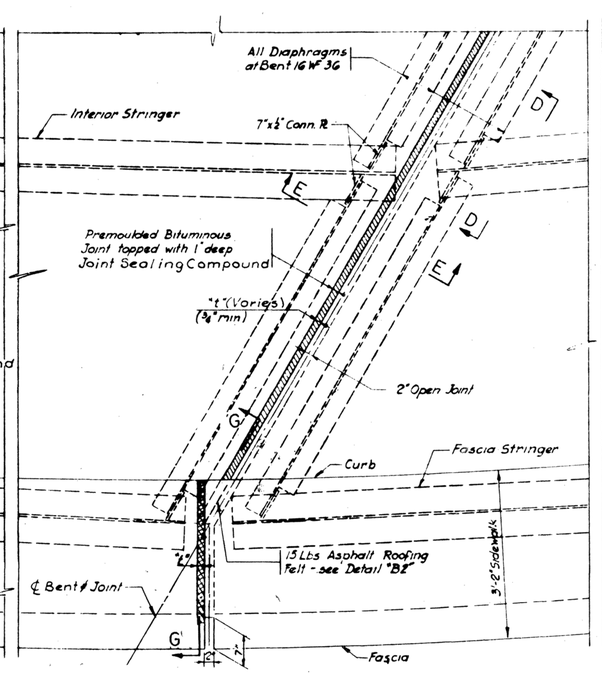
ABUTMENT - SKEWS GREATER THAN 70°

Typical Mastic Joint Details at Abutment



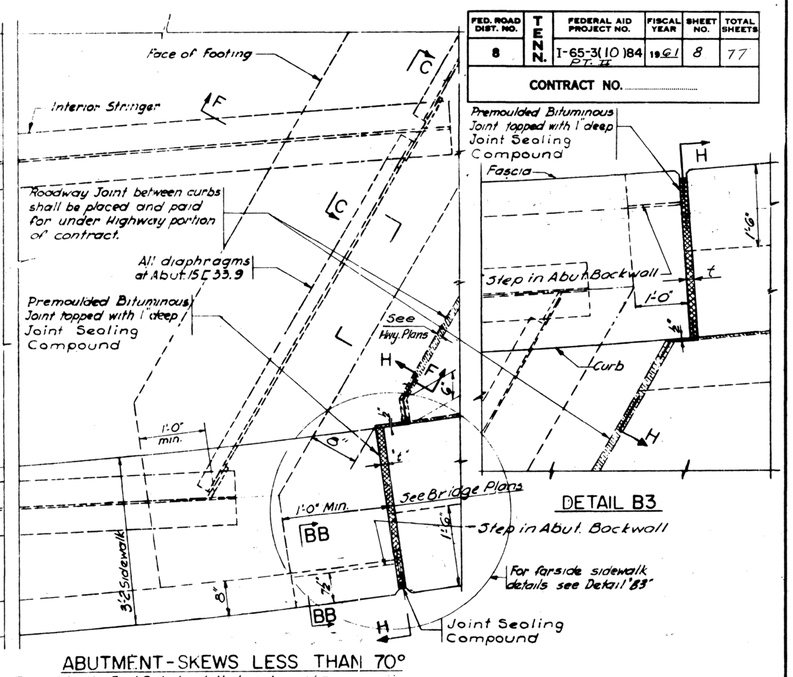
BENT - SKEWS GREATER THAN 70°

Typical Mastic Joint Details at Bent



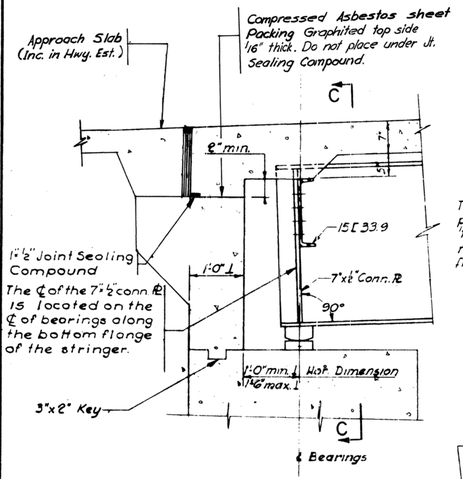
BENT - SKEWS LESS THAN 70°

Typical Mastic Joint Details at Bent

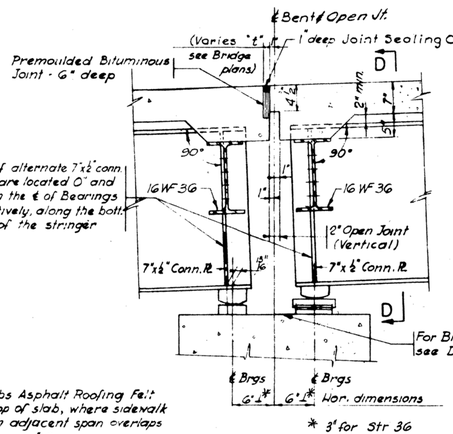


ABUTMENT - SKEWS LESS THAN 70°

Typical Mastic Joint Details at Abutment

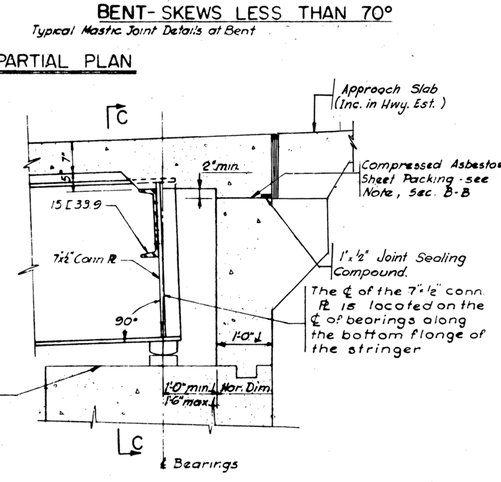


SECTION B-B



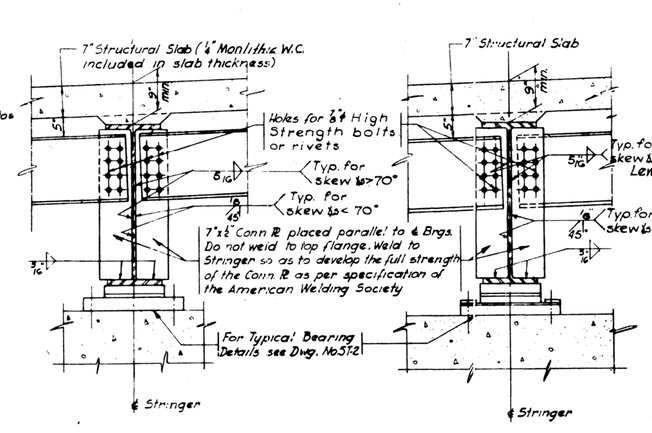
SECTION E-E

Typical connections for end diaphragms at Bent for stringers without stiffeners. For typ. connections for stringers with stiffeners see Details, Drawing No. ST-5



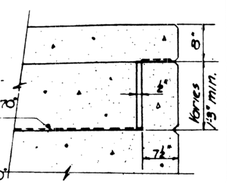
SECTION F-F

Typical connections for end diaphragms at Abutment for stringers without stiffeners. For typical connections for stringers with stiffeners, see Details, Drawing No. ST-5

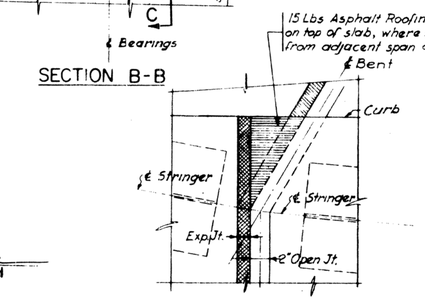


SECTION C-C

SECTION D-D

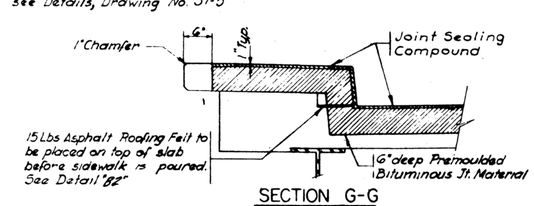


SECTION BB-BB

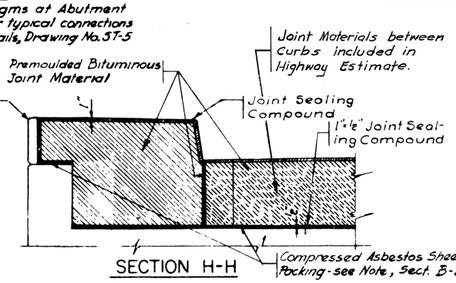


DETAIL B2

Scale; 12" = 1'-0"



SECTION G-G



SECTION H-H

NOTES

1. For Intermediate Diaphragms, see: Dwg. No. ST-4.
2. For Diaph. Conn. for stringers with end bearing stiffeners see Drawing No. ST-5
3. For sections S-S and T-T see Dwg. No. ST-3
4. Bent slab and Abut. reinforcement not shown.
5. For General Notes see Drawing No. ST-1
6. All conn. PL's are minimum size.
7. For Dim. "t" see Bridge Plans.

Recommended by

PRAEGER — KAVANAGH
CONSULTING ENGINEERS

In Charge of
Made by
Traced by
Checked by

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

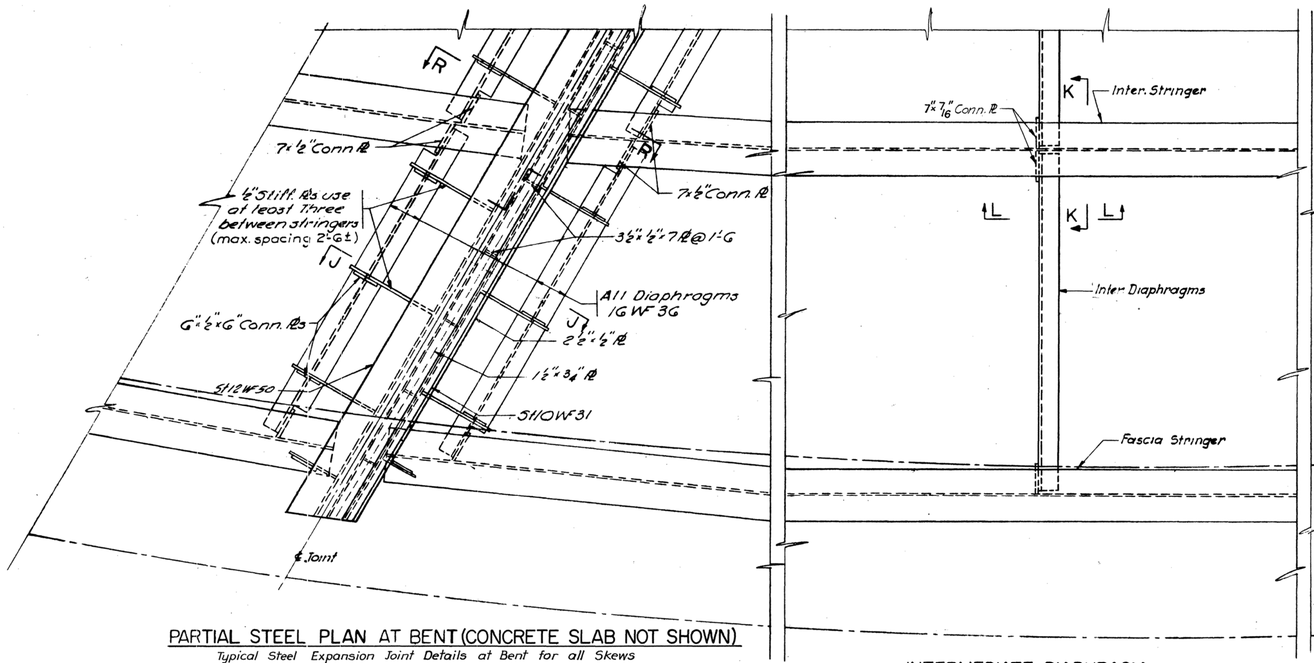
TYPICAL BRIDGE DETAILS III
PARTIAL FRAMING PLANS AND
MASTIC JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	3/4" = 1'-0" if As shown
DATE	Aug. 1961
DRAWING NO.	ST-3
SHEET NO.	8

K-10-82

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 PT. II	19 61	9	77
CONTRACT NO.					

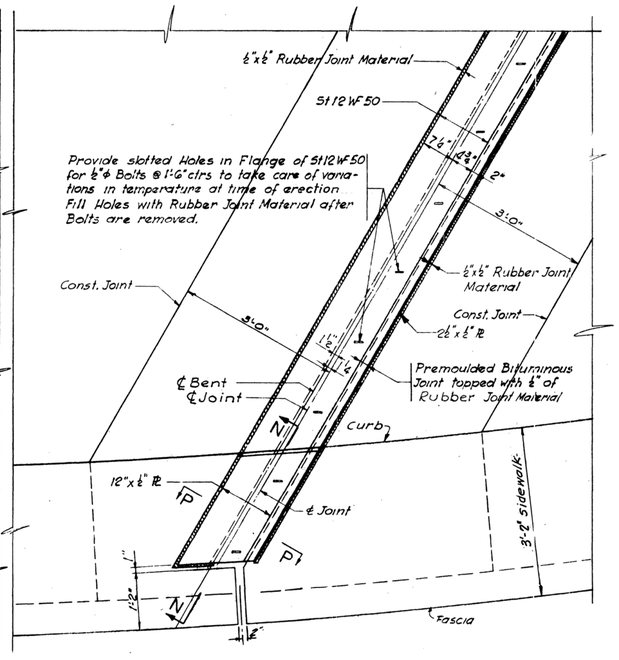


PARTIAL STEEL PLAN AT BENT (CONCRETE SLAB NOT SHOWN)

Typical Steel Expansion Joint Details at Bent for all Skews

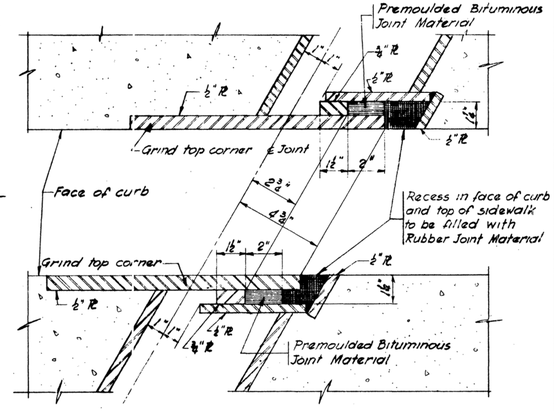
INTERMEDIATE DIAPHRAGM

Typical Intermediate Diaphragm framing detail.



PARTIAL PLAN AT BENT

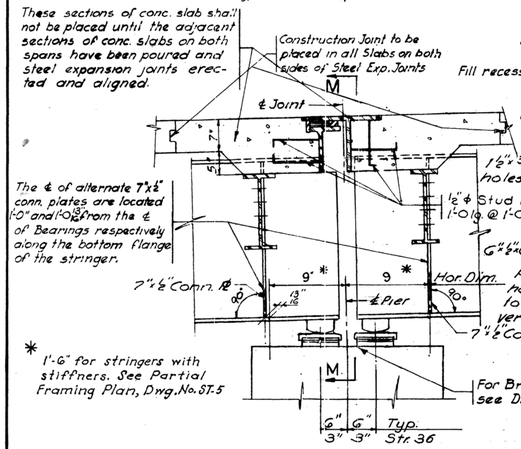
Typical steel Expansion Joint Details at Bent for all Skews.



PLAN SECTION THRU CURBS

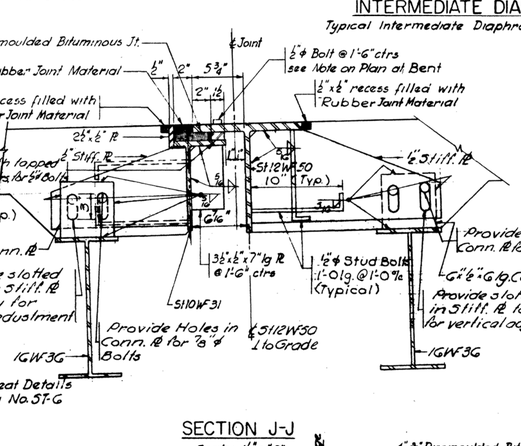
Scale: 3"=1'-0"

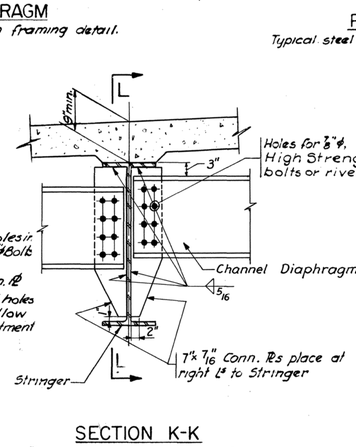
These sections of conc. slab shall not be placed until the adjacent sections of conc. slabs on both spans have been poured and steel expansion joints erected and aligned.

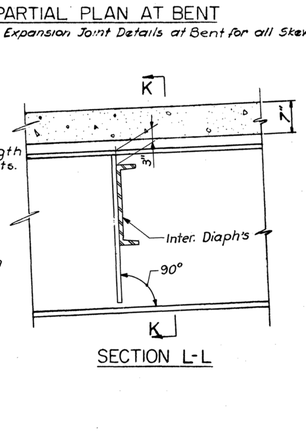


SECTION R-R

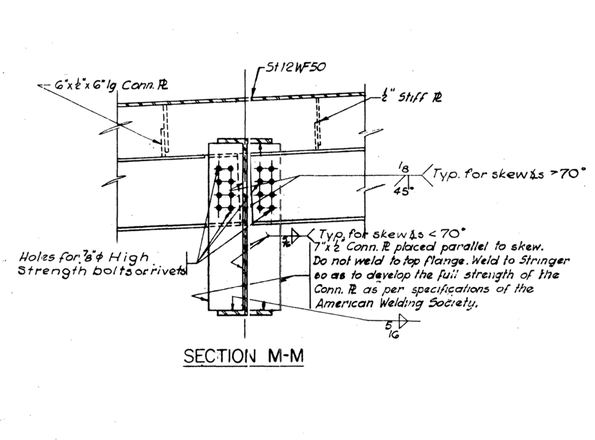
Typical connections for end diaphragms at Bent for stringers without stiffeners. For typical conn. for stringers with stiffeners, see Details Dwg. No. ST-5



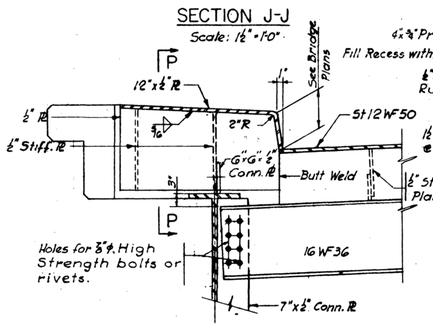




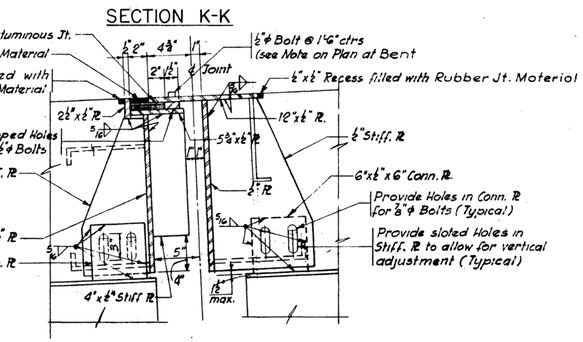
SECTION L-L



SECTION M-M



SECTION N-N



SECTION P-P

Scale; ½"=1'-0"

NOTES

1. For diaphragm conn. for stringers with end bearing stiffeners see Dwg. No. ST-5
2. For General Notes see Dwg. No. ST-1
3. Bent, Slab ℄ Abutment reinforcement not shown.
4. All conn. Pl's are minimum size.

Recommended by: PRAEGER — KAVANAGH CONSULTING ENGINEERS

In Charge of: D. Praeger

Made by: D.J.

Traced by: D.J.

Checked by: J.P.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

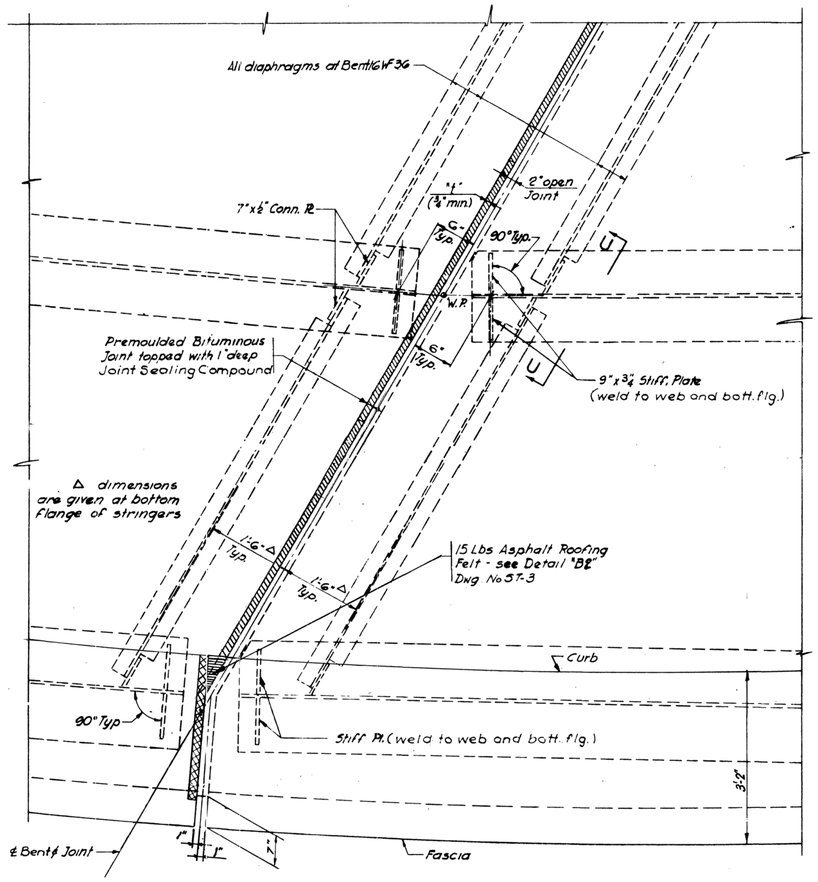
TYPICAL BRIDGE DETAILS IV
PARTIAL FRAMING PLANS AND STEEL JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE 3"=1'-0" ℄ As shown
DATE AUG 1961
DRAWING NO. ST-4
SHEET NO. 9

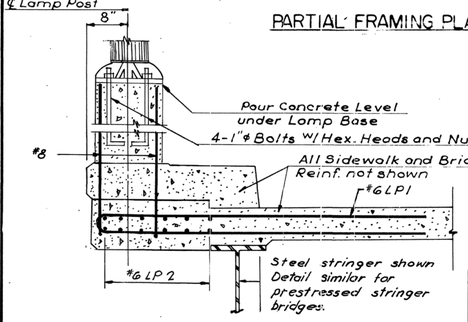
K-10-83

FED. ROAD DIST. NO.	T E N N.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 Pt. II	1961	10	77
CONTRACT NO.					

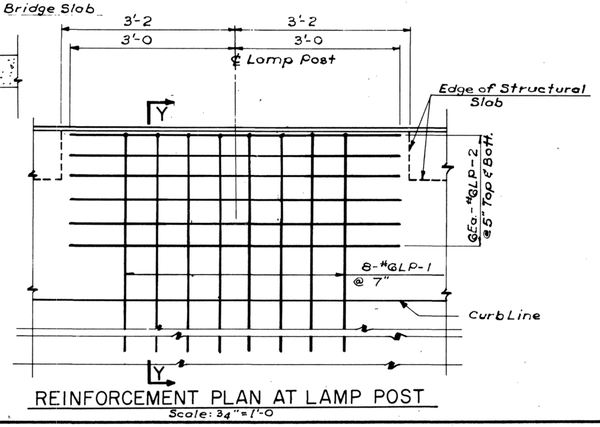


PARTIAL FRAMING PLAN AT BENT FOR STR. WITH END STIFFENERS

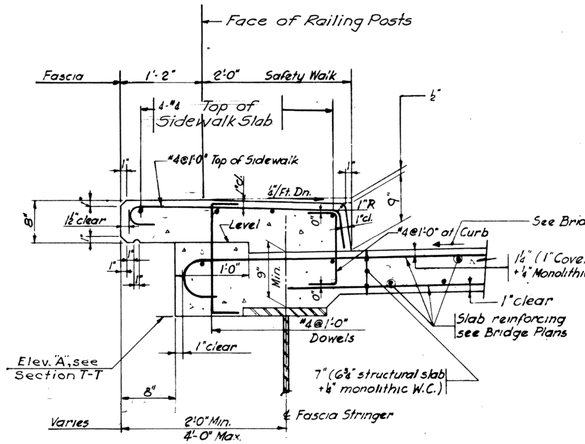
SKEWS LESS THAN 70°
Detail at Abutment similar

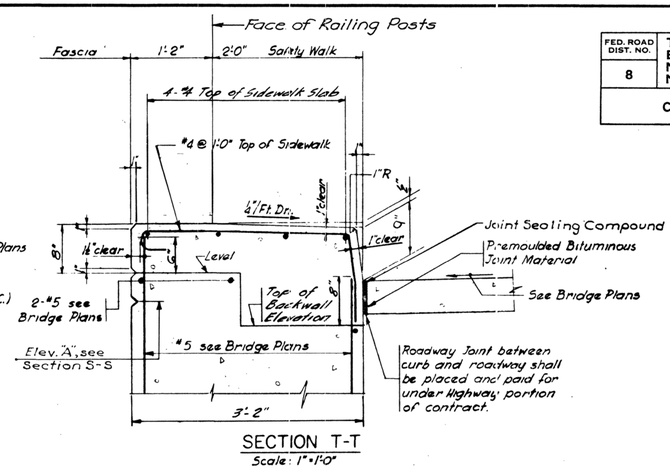


SECTION Y-Y
Scale: ¾"=1'-0



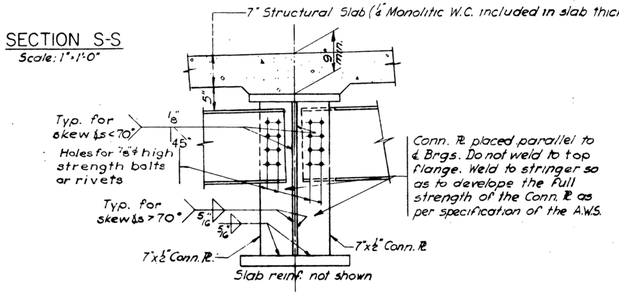
REINFORCEMENT PLAN AT LAMP POST
Scale: ¾"=1'-0



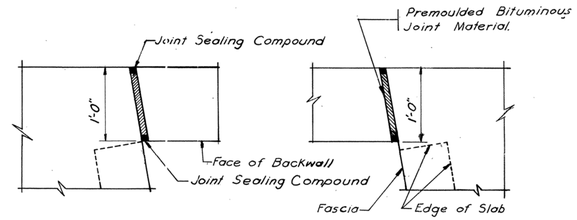


SECTION T-T
Scale: 1"=1'-0"

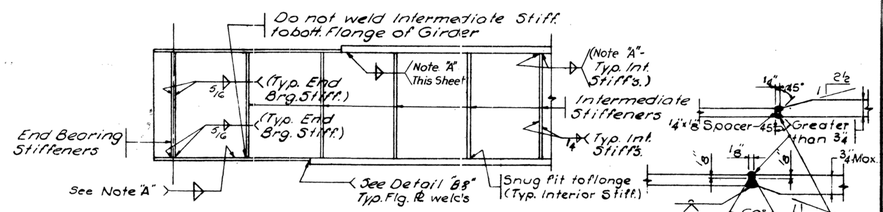
SECTION S-S
Scale: 1"=1'-0"



SECTION U-U



DETAIL AT ABUTMENT BETWEEN BRIDGES
Scale 1"=1'-0"
(Typical for Str. 28-Abut. 1, Str. 30 Abut. 2, Str. 32 & Str. 34
For Str. 28-Abut. 2 and Str. 30-Abut. 2 see Bridge Plans)



PARTIAL ELEV. OF WELDED PLATE GIRDER STRINGER SHOWING TYPICAL WELDS
For Diaphragm Conn. ℞ welds see Dwg. Nos. 5T-3 & 5T-4
N.T.S.

DETAIL B8
N.T.S.
Grind Welds on web side of Cover ℞s flush

NOTES.
1. For General Notes see Drawing No. 5T-1
2. For location of Section S-S and T-T see Drawing No. 5T-3
3. For additional details of railing posts supporting lamp posts see Dwg. No. R-1.

NOTE "A"
For size of welds see AWS Section 222 (b). 5/16" min.
For Welding Specifications and radiographic inspection see Special Provision Regarding Welded Girder Structures.

Recommended by: PRATGER – KAVANAGH CONSULTING ENGINEERS
In Charge of
Made by
Traced by
Checked by

Rev. 8-25-61
Revised 8-25-61

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

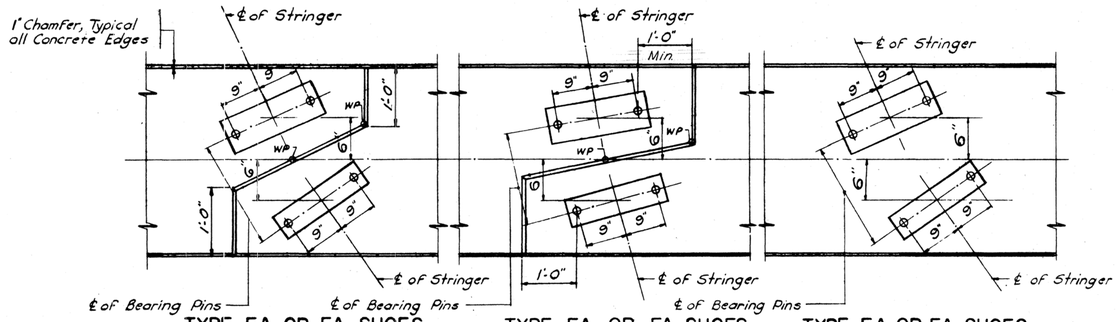
TYPICAL BRIDGE DETAILS V
PARTIAL FRAMING PLANS, MASTIC JOINT & RAILING DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	¾"=1'-0" & As shown
DATE	Aug. 1961
DRAWING NO.	5T-5
SHEET NO.	10

K-10-84

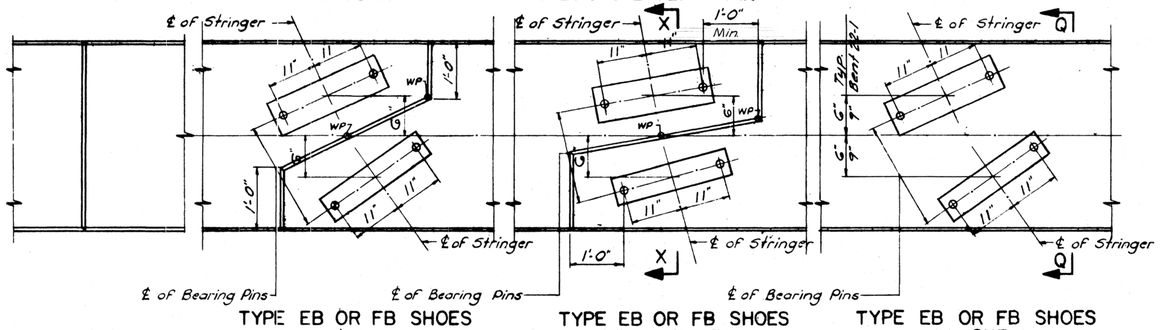
FED. ROAD DIST. NO.		FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3-(10)84 Pt. II	1961	11	77
CONTRACT NO.					



TYPE EA OR FA SHOES
STEPPED BENT
SKEWS LESS THAN 70°

TYPE EA OR FA SHOES
STEPPED BENT
SKEWS GREATER THAN 70°

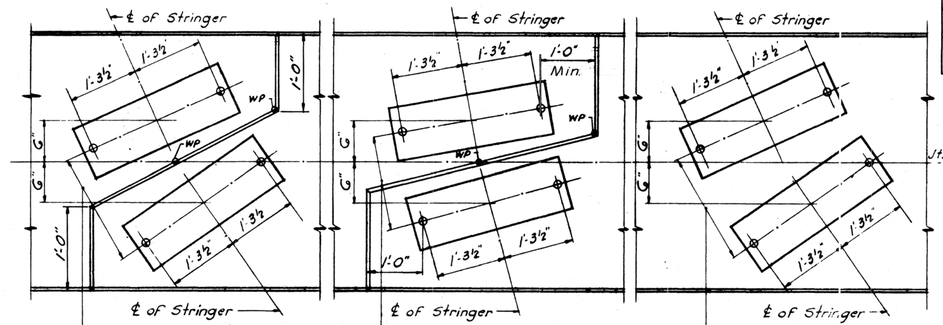
TYPE EA OR FA SHOES
ANY SKEW



TYPE EB OR FB SHOES
STEPPED BENT
SKEWS LESS THAN 70°

TYPE EB OR FB SHOES
STEPPED BENT
SKEWS GREATER THAN 70

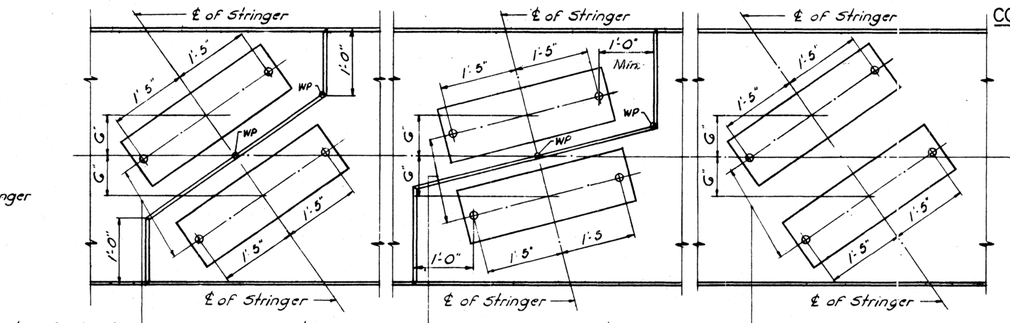
TYPE EB OR FB SHOES
ANY SKEW



TYPE ED OR FD SHOES
STEPPED BENT
SKEWS LESS THAN 70°

TYPE ED OR FD SHOES
STEPPED BENT
SKEWS GREATER THAN 70°

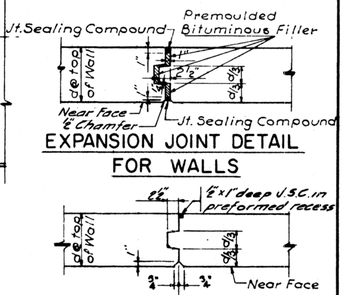
TYPE ED OR FD SHOES
ANY SKEW



TYPE EC OR FC SHOES
STEPPED BENT
SKEWS LESS THAN 70°

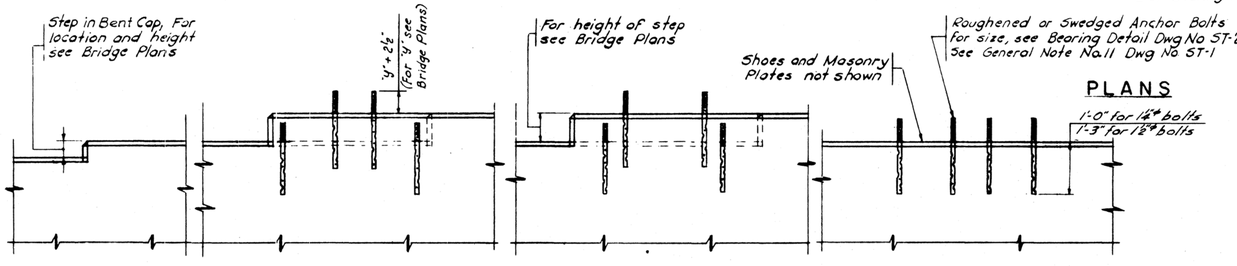
TYPE EC OR FC SHOES
STEPPED BENT
SKEWS GREATER THAN 70°

TYPE EC OR FC SHOES
ANY SKEW



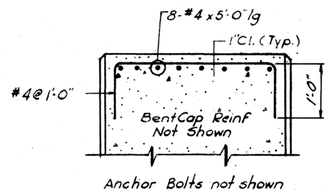
EXPANSION JOINT DETAIL
FOR WALLS

CONSTRUCTION JOINT DETAIL
FOR WALLS

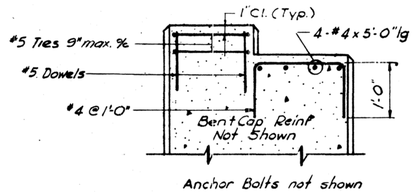


PLANS

TYPICAL ELEVATION



Anchor Bolts not shown
SECTION Q-Q
Additional Reinforcement Under Masonry Plate

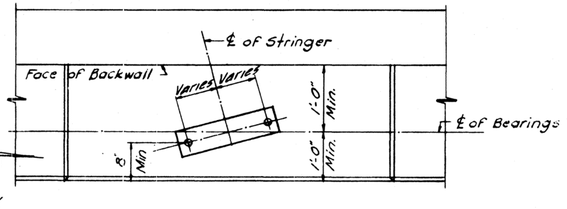


Anchor Bolts not shown
SECTION X-X
Additional Reinforcement Under Masonry Plate

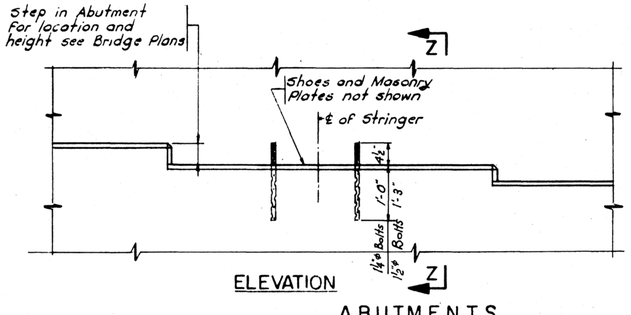
NOTES

1. For General Notes, see Drawing No. ST-1
2. For Bearing Details, see Drawing No. ST-2

BENTS

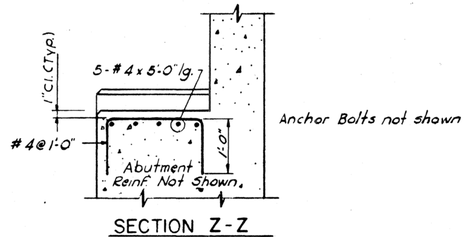


PLAN



ELEVATION

ABUTMENTS



Anchor Bolts not shown

SECTION Z-Z
Additional Reinforcement Under Masonry Plate

Recommended by:
PRAEGER — KAVANAGH
CONSULTING ENGINEERS
In Charge of
Made by
Traced by
Checked by

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 Pt. II

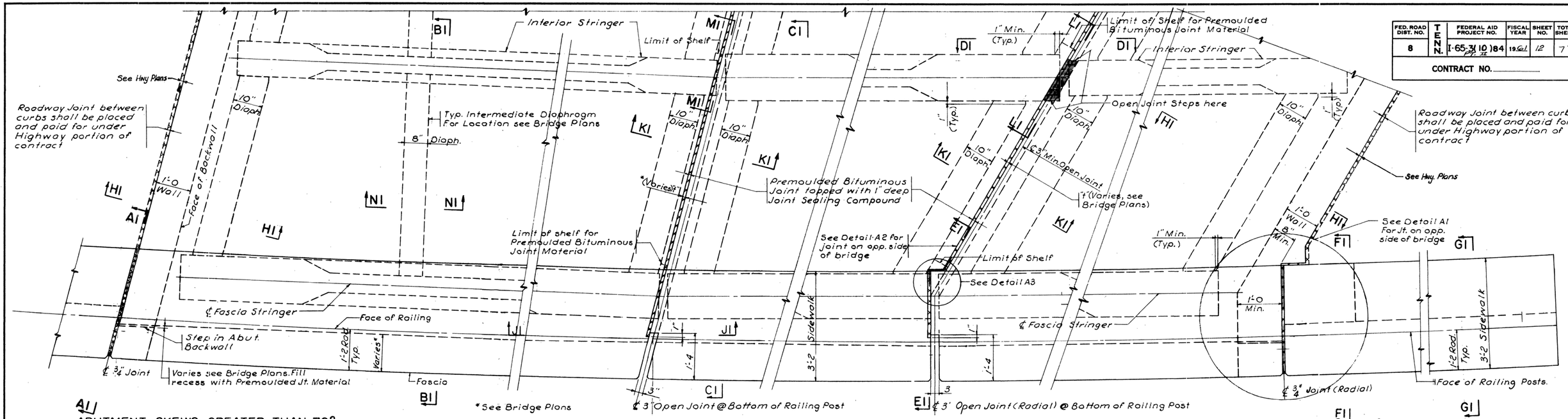
TYPICAL BRIDGE DETAILS VI
DETAILS OF MASONRY PLATES

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	¾" = 1'-0" & As Shown
DATE	Aug. 1961
DRAWING NO.	ST-6
SHEET NO.	11

K-10-85

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 PF. II	1961	12	77
CONTRACT NO.					

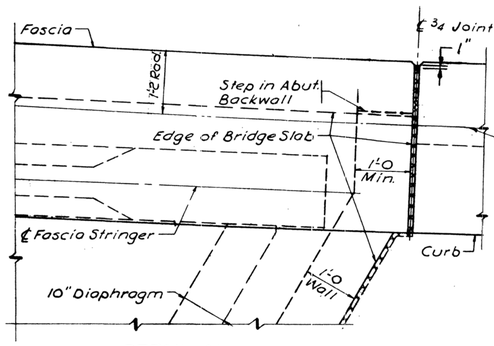


A1 ABUTMENT SKEWS GREATER THAN 70°

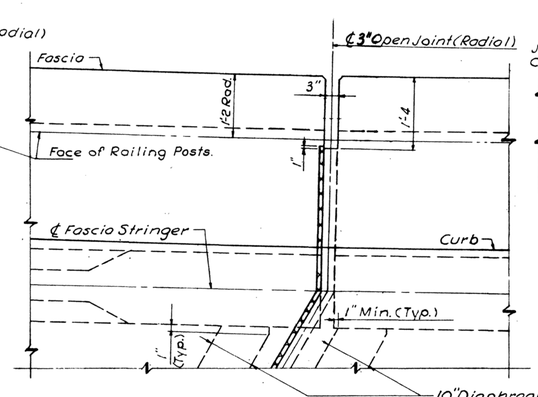
BENT SKEWS GREATER THAN 70°

BENT SKEWS LESS THAN 70°

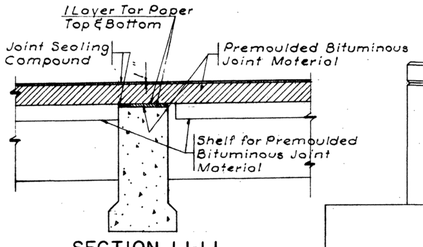
F1 ABUTMENT SKEWS LESS THAN 70°



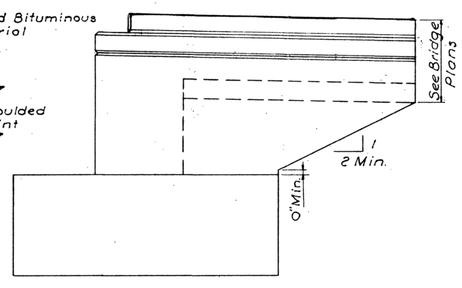
DETAIL A1
Scale: 3/4" = 1'-0



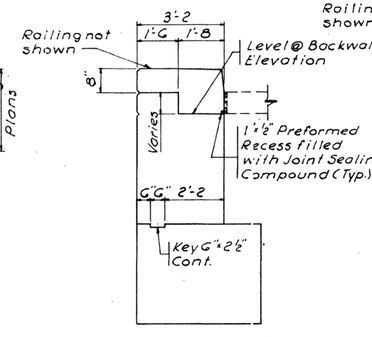
DETAIL A2
Scale: 3/4" = 1'-0



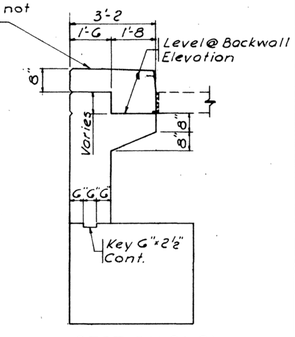
SECTION L1-L1
Scale: 1/2" = 1'-0



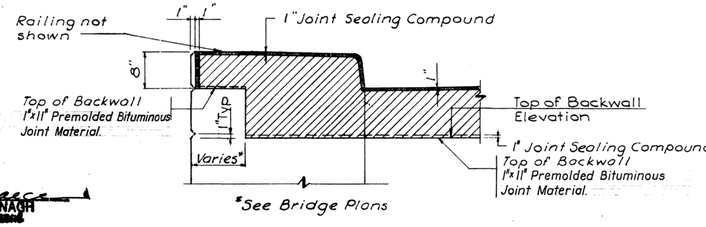
TYPICAL WINGWALL ELEVATION
Scale: 3/8" = 1'-0



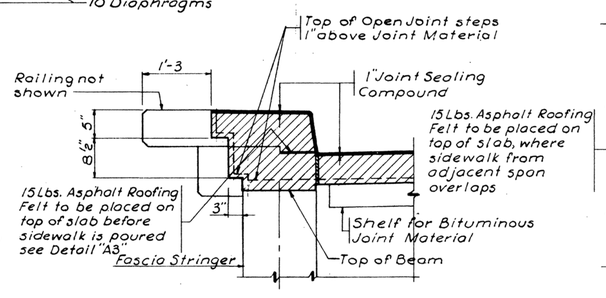
SECTION F1-F1
Scale: 3/8" = 1'-0



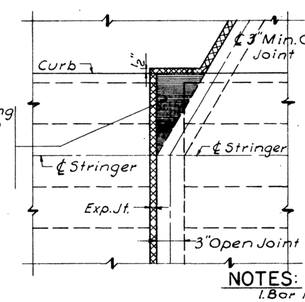
SECTION G1-G1
Scale: 3/8" = 1'-0



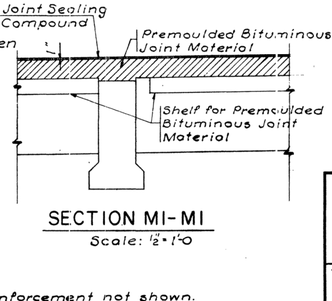
SECTION A1-A1
Scale: 3/4" = 1'-0



SECTION E1-E1
Scale: 3/4" = 1'-0



DETAIL A3
Scale: 1/2" = 1'-0



SECTION M1-M1
Scale: 1/2" = 1'-0

NOTES:
1. Bar reinforcement not shown.
2. For Sections B1-B1, C1-C1, D1-D1, H1-H1, K1-K1, J1-J1 & N1-N1, see Dwg. No. CT-2

Recommended by:
PRAEGER — KAVANAGH
CONSULTING ENGINEERS
In Charge of
Made by
Traced by
Checked by

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PF. II

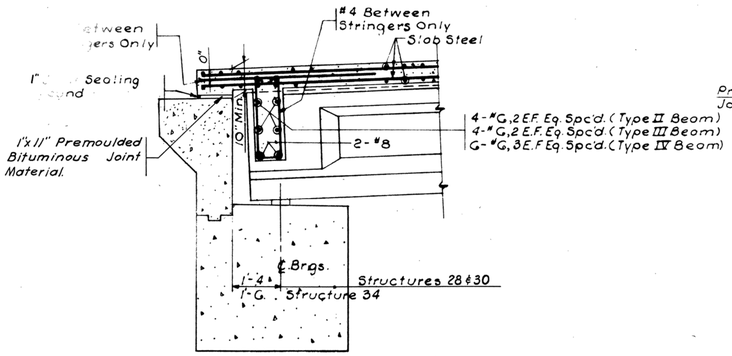
TYPICAL CONCRETE BRIDGE DETAILS I
PARTIAL FRAMING PLANS
AND MASTIC JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE 3/4" = 1'-0" As Shown
DATE Aug. 1961
DRAWING NO. CT-1
SHEET NO. 12

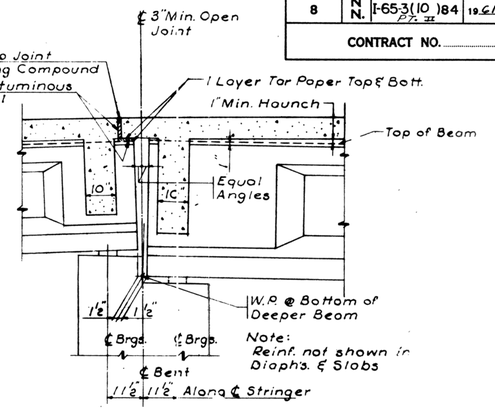
K-10-86

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 Pt. II	1961	13	77
CONTRACT NO.					



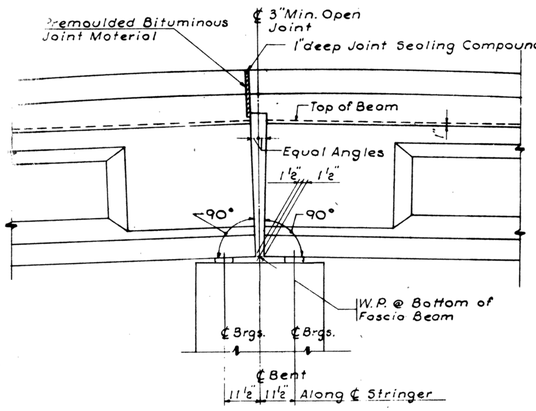
SECTION HI-HI

Scale: 1/2"=1'-0



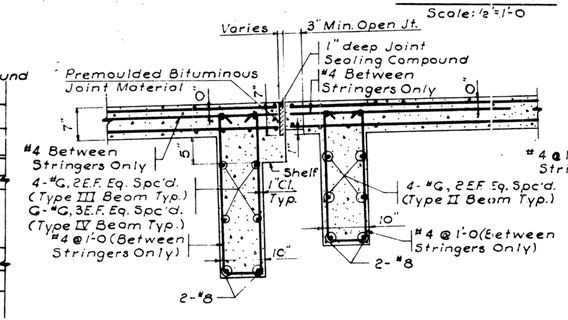
SECTION DI-DI

Scale: 1/2"=1'-0



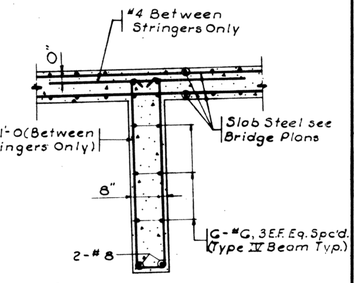
SECTION JI-JI

Scale: 1/2"=1'-0



SECTION KI-KI

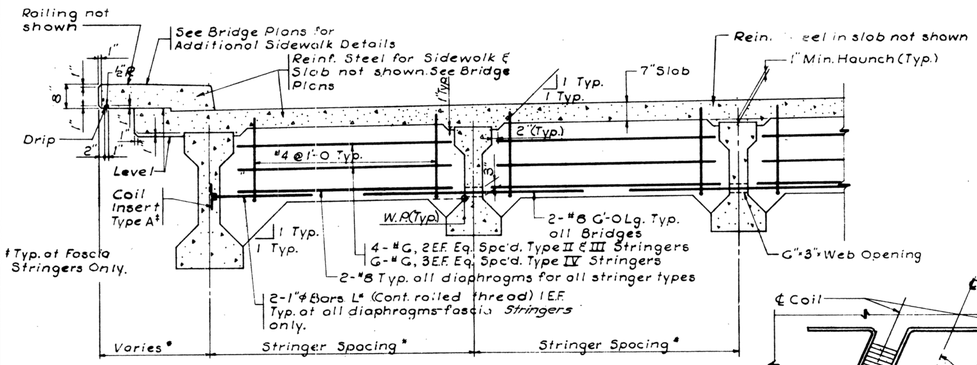
Scale: 3/4"=1'-0



Reinf. Steel for Types II & III Diaph's. similiar to Section B1-B1

SECTION NI-NI

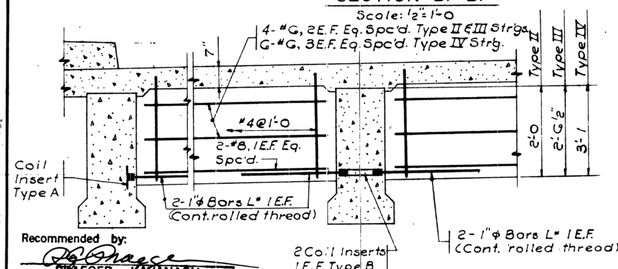
Scale: 3/4"=1'-0



*See Bridge Plans

SECTION BI-BI

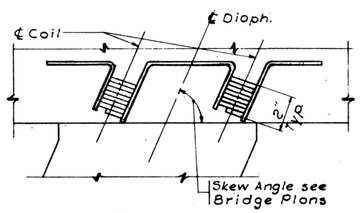
Scale: 1/2"=1'-0



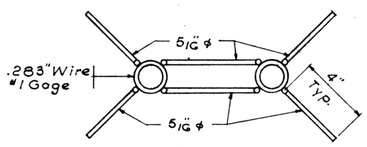
*See Bridge Plans

SECTION CI-CI

Scale: 1/2"=1'-0

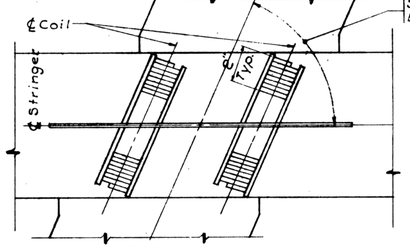


PLAN

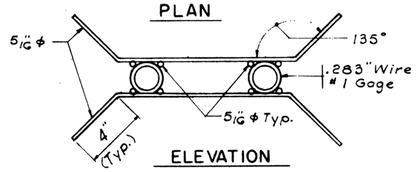


ELEVATION

TYPE A



PLAN



ELEVATION

TYPE B

COIL INSERT DETAILS

N.T.S.

NOTES:
1. Abutment & stringer reinforcement not shown.
2. For locations of Sections C1-C1, D1-D1, H1-H1, J1-J1, K1-K1, N1-N1 & B1-B1, see Dwg. No. CT-1

Recommended by: [signature]
PRAEGER — KAVANAGH
CONSULTING ENGINEERS

In Charge of [signature]
Made by J.E.
Traced by J.E.
Checked by [signature]

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 Pt. II

TYPICAL CONCRETE BRIDGE DETAILS II
PARTIAL FRAMING PLAN, STRINGER, DIAPHRAGM, MALL GUIDE RAIL & MASTIC JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	As Shown
DATE	Aug. 1961
DRAWING NO.	CT-2
SHEET NO.	13

K-10-87

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)84 Pt. II	19 61	14	77
CONTRACT NO.					

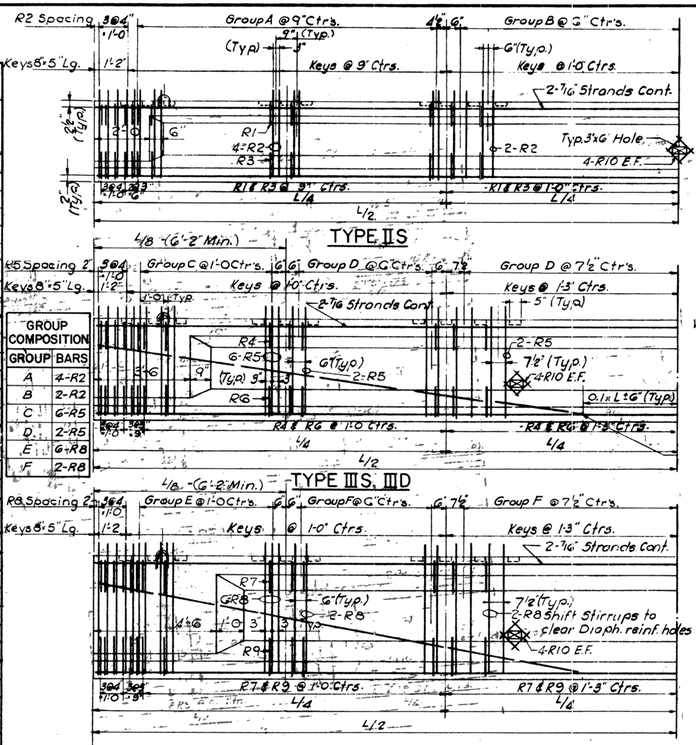
BEAM SCHEDULE

N.I.C.

STR. NO.	STRINGER MK.	STRINGER NO.	STRINGER HOR. LGTH C-C BRG.	STRINGER TYPE	MAX. MOMENT STRINGER D.L.	MAX. MOMENT 7"SLAB & DIAPHR'M.	FT. KIPS SUP. D.L.*	FT. KIPS LL. + IMP	FT. KIPS TOT. MOM.	MAX. SHEAR KIPS	INITIAL FORCE KIPS	FINAL FORCE KIPS	TOTAL NO. OF 7/16" STRANDS	NO. OF 7/16" STRANDS PER ROW 1	2	3	4	5	6	7	8	9	TOP	NO. OF DRAPED STRANDS
27	S1	14	27'-3 9/16"	IIS	36	58	29	230	353	57	227	181	12	4	2	4	–	–	–	–	–	–	2	–
	S2	2	27'-3 9/16"	IIS	36	75	29	332	472	77	302	242	16	4	4	4	2	–	–	–	–	–	2	–
	S3	2	27'-3 9/16"	IIIS	54	70	29	46	199	29	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	S4	14	44'-6 5/8"	IIS	96	155	78	434	763	75	529	423	28	8	8	4	2	–	2	2	–	–	2	–
	S5	2	44'-6 5/8"	IIIS	146	187	78	124	535	48	378	302	20	4	4	4	2	2	2	–	–	–	2	–
	S6	2	44'-6 5/8"	IIIS	146	203	78	515	942	89	529	423	28	6	6	4	4	2	2	–	–	–	2	–
	S7	4	61'-7 1/8"	IID	278	357	148	236	1019	66	567	454	30	10	10	6	–	–	–	–	–	–	2	4
	S8	28	61'-7 1/8"	IID	278	295	148	668	1389	95	680	544	36	10	10	8	6	–	–	–	–	–	2	6
	S9	4	61'-7 1/8"	IID	278	386	148	790	1602	111	756	605	40	10	10	10	8	–	–	–	–	–	2	8
28	S10	10	30'-0 1/4"	IIS	43	89	28	307	467	72	302	242	16	4	4	4	2	–	–	–	–	–	2	–
	S11	4	30'-0 1/4"	IIIS	66	76	28	236	406	61	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	S12	10	36'-9 13/16"	IIS	65	131	42	388	626	80	454	363	24	8	6	2	2	2	2	–	–	–	2	–
	S13	4	36'-9 13/16"	IIIS	99	113	42	314	568	71	340	272	18	4	4	2	2	2	2	–	–	–	2	–
	S14	4	56'-0 1/8"	IIIS	230	226	97	442	995	75	605	484	32	8	6	4	4	2	2	2	2	–	2	–
	S15	24	56'-0 1/8"	IIIS	230	308	97	709	1344	105	794	635	42	8	8	8	6	2	2	2	2	–	2	–
30	S16	10	37'-10 3/16"	IIS	69	138	45	405	657	81	454	363	24	8	6	2	2	2	2	–	–	–	2	–
	S18	4	37'-10 3/16"	IIIS	105	120	45	316	586	70	378	302	20	4	4	4	2	2	2	–	–	–	2	–
	S19	10	42'-5 3/4"	IIS	87	172	56	482	797	86	567	454	30	8	8	6	2	–	2	2	–	–	2	–
	S20	4	42'-5 3/4"	IIIS	132	146	56	383	717	74	416	333	22	4	4	4	4	2	–	–	2	–	2	–
	S21	4	56'-10 1/4"	IIIS	237	229	100	448	1014	76	605	484	32	8	6	4	4	2	2	2	2	–	2	–
	S22	24	56'-10 1/4"	IIIS	237	314	100	720	1371	106	794	635	42	8	8	8	6	2	2	2	2	2	2	–
34	S46	10	34'-8 7/16"	IIS	58	93	52	343	546	62	378	302	20	6	4	4	2	2	–	–	–	–	2	–
	S23	4	34'-8 7/16"	IIIS	88	76	52	235	453	58	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	S24	10	40'-11 5/16"	IIS	81	146	72	432	731	80	529	423	28	8	6	4	2	2	2	–	–	–	2	–
	S25	4	40'-11 5/16"	IIIS	123	117	72	301	613	65	378	302	20	4	4	4	2	2	2	–	–	–	2	–
	S26	20	66'-5 3/16"	IID	321	381	189	818	1709	105	756	605	42	10	10	10	8	2	–	–	–	–	2	10
	S27	8	66'-5 3/16"	IID	321	304	189	602	1416	89	718	575	38	10	10	10	6	–	–	–	–	–	2	6
38	S28	4	27'-6 1/4"	IIS	56	68	36	280	440	70	265	212	14	4	2	2	2	–	–	–	–	–	2	–
	S29	2	27'-6 1/4"	IIS	78	68	36	93	275	42	302	242	16	6	6	2	–	–	–	–	–	–	2	–
	S30	4	28'-6 7/16"	IIIS	60	73	39	291	463	73	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	S31	2	28'-6 7/16"	IIS	84	73	39	98	294	43	302	242	16	6	6	2	–	–	–	–	–	–	2	–
	S32	8	71'-0 11/16"	IID	320	441	241	449	1651	94	718	575	38	12	12	12	–	–	–	–	–	–	2	6
	S33	16	71'-0 11/16"	IID	320	450	241	968	2179	129	869	696	46	12	12	12	8	–	–	–	–	–	2	8
42A	S34	2	54'-6 3/4"	IIIS	218	200	123	400	941	74	567	454	30	8	6	4	4	2	–	–	2	2	2	–
	S35	7	54'-6 3/4"	IIIS	218	298	123	705	1344	108	794	635	42	8	8	8	6	2	2	2	2	2	2	–
42B	S36	2	54'-5 1/4"	IIIS	218	200	123	400	941	74	567	454	30	8	6	4	4	2	–	–	2	2	2	–
	S37	7	54'-5 1/4"	IIIS	218	298	123	705	1344	108	794	635	42	8	8	8	6	2	2	2	2	2	2	–
44A	S38	14	25'-3 1/2"	IIS	31	54	18	234	337	58	227	181	12	4	2	4	–	–	–	–	–	–	2	–
	S39	2	25'-3 1/2"	IIS	51	64	18	266	379	66	265	212	14	4	4	4	2	2	–	–	–	–	2	–
	S40	2	25'-3 1/2"	IIIS	47	46	18	148	254	43	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	S41	16	96'-0 1/2"	IIS	62	130	36	399	627	81	416	333	22	6	6	4	2	–	2	–	–	–	2	–
	S42	2	36'-0 1/2"	IIIS	95	92	36	222	445	55	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	S43	4	55'-7"	IIIS	225	220	87	426	958	73	605	484	32	8	6	4	4	2	2	2	2	–	2	–
	S44	28	55'-7"	IIIS	225	262	87	250	1224	95	718	574	38	8	8	6	6	–	2	2	2	2	2	–
	S45	4	55'-7"	IIIS	225	310	87	740	1362	106	794	635	42	8	8	8	6	2	2	2	2	2	2	–

N.I.C.

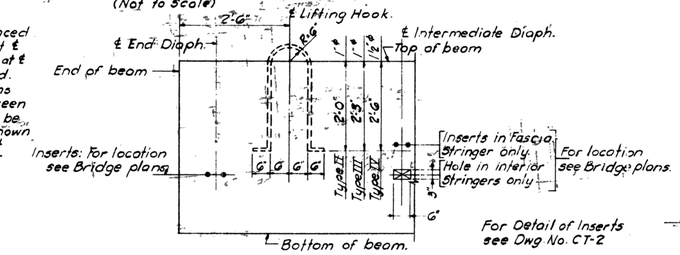
*Superimposed D.L.: Sidewalk, Railing and 25 p.s.f. future wearing surface.



Note: Inserts at ends of beams not shown.

TYPICAL ELEVATIONS OF BEAMS

(Not to Scale)

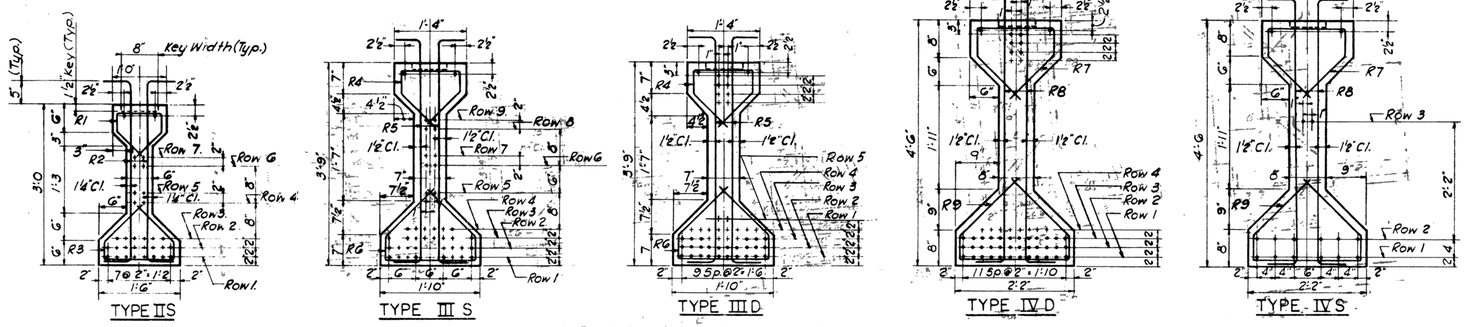


DETAIL OF LIFTING HOOKS HOLES & INSERTS

(Not to Scale)

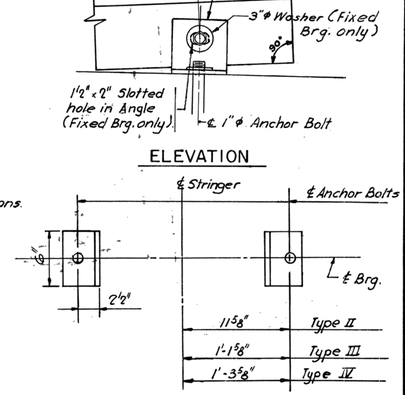
NOTE:

Strands shall be placed symmetrically about ℄ of beam beginning at ℄ except as indicated. All strands in beams Type IIID & IVD between R5 & R8 bars shall be draped. Strands shown thus • are present in all stringers of same type.



TYPICAL SECTIONS OF BEAMS

Scale: 3/4" = 1'-0"



TYPICAL SECTION

ELEVATION

PLAN

BEARING DETAILS

Scale: 1½" = 1'-0"

NOTES:

1. All Prestressing strands shall be uncoated 7-wire ½" nominal dia. Initial prestressing load to be 189 k/strand. Min. effective prestressing load for design purposes assumed to be 175.1 kips per strand. Reinforcing bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures (ACI 315 A57)". Prior to fabrication, Contractor shall submit detailed description of proposed fabrication, handling and transportation procedure for approval of Engineer. Hold down device shall be friction less and shall permit relative horizontal movement of beam upon release of external prestressing forces. Additional tensile stresses in top of beam due to release of hold-down shall be avoided.
2. The tops of all prestressed beams shall be roughened and laitance removed at approximately the time of initial set.

BAR — SCHEDULE

MK.	SIZE	TYPE	LENGTH	A	B	C	D	E	F	G
R1	#3	A	2'-5"	9"	5½"	3½"	G½"	G½"	4½"	4½"
R2	#4	B	4'-4"	3'-4"	G"	G"				
R3	#3	A	3'-9"	1'-3½"	2¾"	2¾"	1'-0"	1'-0"	8½"	8½"
R4	#3	A	3'-6"	1'-1"	4½"	4½"	10"	10"	7"	7"
R5	#4	B	5'-1"	4'-1"	G"	G"				

Type 'A' Type 'B'

BAR — SCHEDULE

MK.	SIZE	TYPE	LENGTH	A	B	C	D	E	F	G
RG	#5	A	4'-9"	1'-7½"	4¾"	4¾"	1'-2"	1'-2"	10"	10"
R7	#3	A	4'-4"	1'-5"	5½"	5½"	1'-0"	1'-0"	8½"	8½"
R8	#4	B	5'-10"	4'-10"	G"	G"				
R9	#3	A	5'-7"	1'-11½"	4¾"	4¾"	1'-5"	1'-5"	1'-0"	1'-0"
R10	#3	Str.	1'-6"							

Type 'A' Type 'B'

Recommended by:
PRAEGER — KAVANAGH
CONSULTING ENGINEERS

In Charge of: J.P. Mooney
Made by: A.C.
Traced by: B.C.
Checked by: S.K.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 Pt. II

TYPICAL CONCRETE BRIDGE DETAILS III
BEAM & BEARING DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE: As Shown
DATE: Aug. 1961
DRAWING NO. CT-3
SHEET NO. 14

K-10-88

FED. ROAD DIST. NO.	T E N N.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 P.T. II	1961	52	77
CONTRACT NO.					

Bank 0.0156 ft./ft. down to left

℄ North 1st Street & Theo. Sta. Line D, Sta. E 226+26.907

P.V.I. Sta. E223+40
Elevation 442.750
V.C. = 500' M.O. = -1.608

+1.50%

-1.0729%

P.T. Sta. E225+90

Approx. Existing Ground Surface

Reference El. = 415.00

E223+00 E224+00 E225+00 E226+00 E227+00

PROFILE LINE "E"

Scale: Hor. 1" = 100'
Vert. 1" = 10'

PLAN

Scale 3/64" = 1'-0"

*Station along Theo. Sta. Line "E" Elevation on Theo. Grade Line at indicated Stations. F.G. = Finished Grade.

Bridge Begins Sta. E224+29.42 F.G. El. = 441.13

*Sta. E225+13.15 F.G. El. = 440.74

*Sta. E227+38.92 F.G. El. = 438.48

*Bridge Ends Sta. E228+01.81 F.G. El. = 437.73

379'-5 3/8"

84'-8 3/4" | ℄ Bent | 114'-2 7/8" | ℄ Bent | *Sta. E226+26.905 F.G. El. = 439.67 | 110'-9 1/2" | ℄ Bent | 69'-8 1/4" | Along Theo. Sta. Line "E"

North Edge of Bridge Slab

South Edge of Bridge Slab

El. 440

El. 430

El. 420

El. 410

Fin. Grade at Face of Wingwall (Typ.)

2 ℄ (Min.)

Approx. Existing Ground Surface

Theoretical Earthwork Prismat face of Wingwall (Typical)

1'-0" Min. (Typ.)

12'-0" | 26'-0" Pavement | 6'-6" | 6'-6" | Min. Clearance 14'-6" E. Portal | 26'-0" Pavement | 12'-0"

Theo. Grade Line

Theo. Grade Line

Theo. Station Line "D" ℄ North 1st Street.

Piles 12BP53 (Typ.)

Normal Dim. 2 ℄ (Min.)

See Notes 3 & 4 (Typ.)

Note: Fill to be placed prior to driving piles (Typ. at Abutments.)

ELEVATION

Scale 1/16" = 1'-0"

Assumed Rock Surface

SOUNDING SKETCH

scale 1" = 40'

Legend:
G = Ground Elevation
R = Elev.-Top of Rock Sounding.

LEGEND

Ⓕ Fixed Bearings
Ⓔ Expansion Bearings

ESTIMATED QUANTITIES – STR. 36A

Item Nos.	17-2	17-4	135-4	135-12	132-51		704	137-4		800-36A
Item	Excavation-C.Y.		Concrete Class A Cu. Yds.	Steel-Lbs.			Conc. Handrlg. Lin. Ft.	12BP53 Steel Pile Lin. Ft.		Structure Lighting L.S.
	Dry	Rock		Reinf.	Struct.					
Superstructure	—	—	401.5	94,200	L.S.+		859	——		1
Abutment 1E	—	—	115.8	8,729	—		—			—
Abutment 2E	—	—	107.5	7,379	—		—			—
Bent 1E	207	—	190.4	29,722	—		—			—
Bent 2E	207	—	185.8	29,647	—		—			—
Bent 3E	207	—	187.1	28,741	—		—			—
Totals	621	—	1,188.1	198,418	L.S.+		859	4,495		1

+ Structural Steel 598,818 Lbs.
Bronze 3,507 Lbs.
Stud Shear Conn. 5,796 Ea.

ESTIMATED QUANTITIES – STR. 36B

Item Nos.	17-2	17-4	135-4	135-12	132-51		704	137-4		800-36B
Item	Excavation Cu.Yds.		Concrete Class A Cu. Yds.	Steel Lbs.			Conc. Handrailing Lin. Ft.	12BP53 Steel Pile Lin. Ft.		Structure Lighting L.S.
	Dry	Rock		Reinfor.	Structural					
Superstructure	—	—	387.7	90,145	L.S. +		831	——		1
Abutment 1W	—	—	112.5	8,007	—		—			—
Abutment 2W	—	—	105.4	7,973	—		—			—
Bent 1W	207	—	190.2	29,933	—		—			—
Bent 2W	207	—	184.5	29,385	—		—			—
Bent 3W	207	—	185.2	28,549	—		—			—
Totals	621	—	1,165.5	193,992	L.S. +		831	4,470		1

+ Structural Steel 557,573 Lbs.
Bronze 3,334 Lbs.
Stud Shear Conn. 5,598 Ea.

NOTES

1. For General Notes and Typical Bridge Details see Dwg. Nos. STI-ST6, CTI-CT3
2. For Working Point Stations and Coordinates, see Dwg. No. 36-2
3. For layout and details of railings, see Dwgs. No. R1 & R2.
4. For pile cutoff elevations, see individual substructure drawings, Dwg. Nos. 36-5 to 36-9.
5. Design live load: A.A.S.H.O. H20-S16(44) or alternate loading specified in Par. 4(C) of P.P.M. 20-4.
6. Piles shall be driven to refusal on rock or to a minimum bearing capacity of 45 Tons as indicated on substr. dwgs.

LIST OF DRAWINGS

	DWG. NO.
Lighting Plan	ED-48
Bridge Typicals	STI-ST6 CTI-CT3
Plan, Elevation, Soundings & Estimates	36-1
Framing Plans, Stringer Schedules & W.P.'s	36-2
Slab Plans: Details I	36-3
Slab Plans: Details II	36-4
Abutment 1E	36-5
Abutment 1W	36-6
Abutment 2E	36-7
Abutment 2W	36-8
Bents	36-9
Bent Details	36-10
Std. Conc. Rlg. - State of Tenn.-Dept. H. & P.W.	H-5-110

Recommended by:
PRAEGER – KAVANAGH
CONSULTING ENGINEERS
In Charge of GD Marriott
Made by B. H
Traced by B. H.
Checked by M.E.K.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84
P.T. II

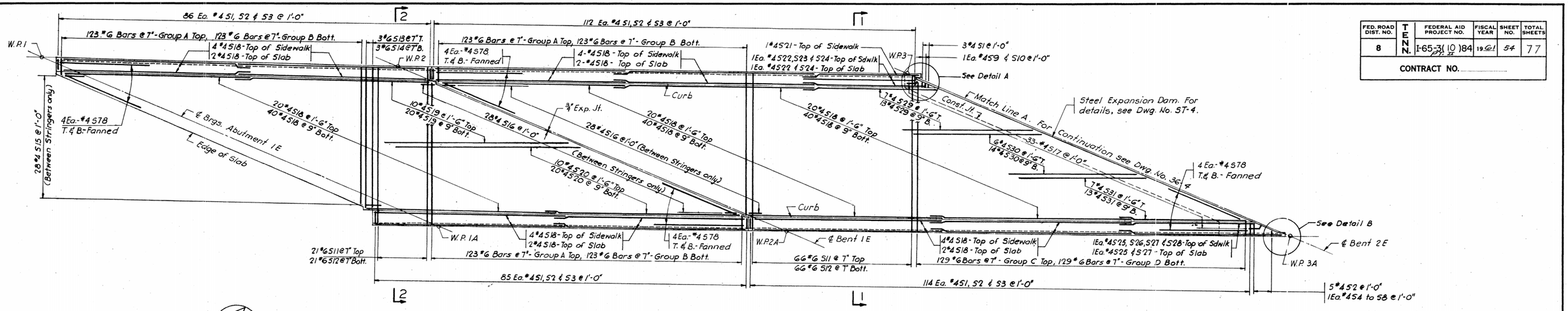
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
PLAN, ELEVATION, SOUNDINGS & ESTIMATE

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-1
SHEET NO. 52

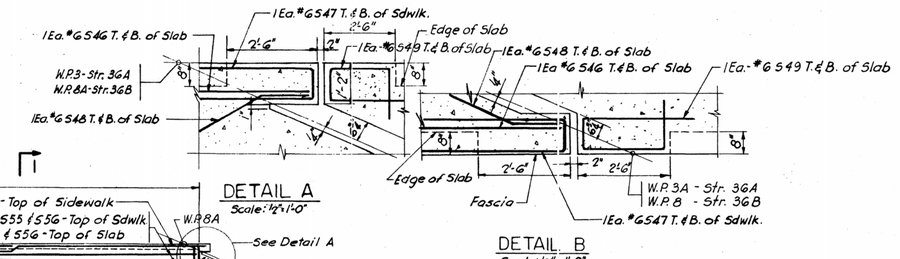
K-10-126

FED. ROAD DIST. NO.	T E N N.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 Pt II	1962	54	77
CONTRACT NO.					



STRUCTURE 36A

Scale: $\frac{3}{32}$" = 1'-0"

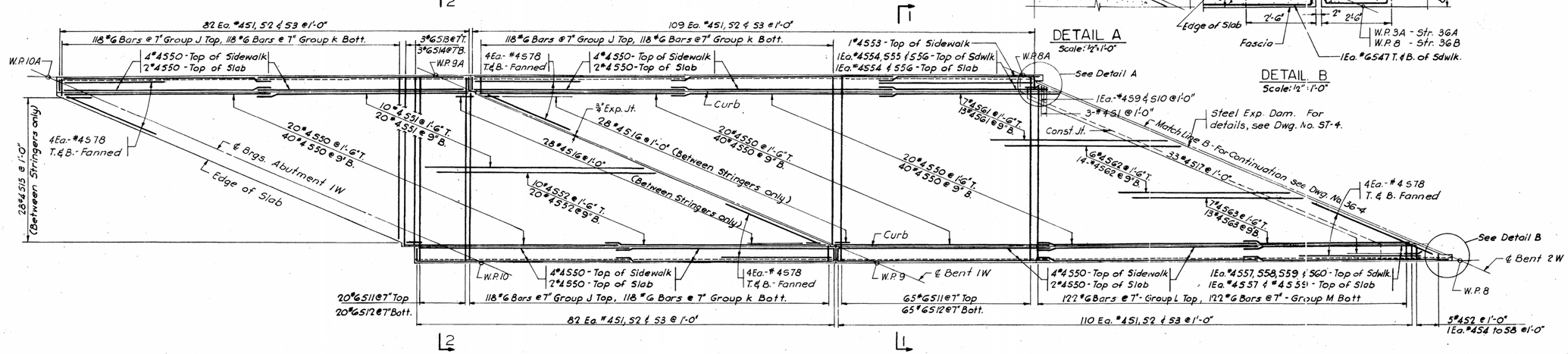


DETAIL A

Scale: ½" = 1'-0"

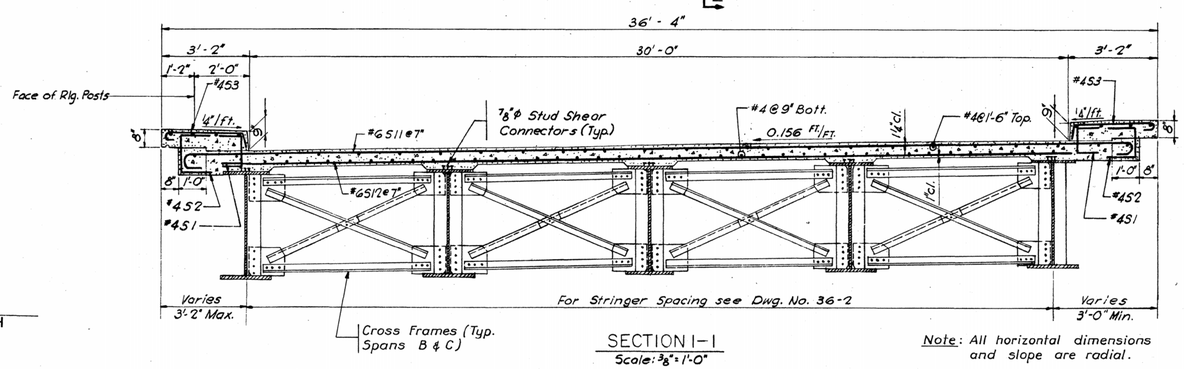
DETAIL B

Scale: ½" = 1'-0"



STRUCTURE 36B

Scale: $\frac{3}{32}$" = 1'-0"



SECTION I-I

Scale: $\frac{3}{8}$" = 1'-0"

Note: All horizontal dimensions and slope are radial.

NOTES

1. For additional Notes see Dwg. No. 36-1
2. For Stations and Coordinates of Working Points see Dwg. No. 36-2
3. For additional slab details see Dwg. Nos. ST-3, ST-4 and ST-5.
4. Spacing between reinforcing shown on Plan is perpendicular to ℄ of bar.
5. Work this sheet with Dwg No. 36-4.
6. For location of Lamp Posts see Dwg. No. 36-1. For special reinforcing see Dwg. No. ST-5.
7. For Section 2-2, see Dwg. No. 36-4.
8. For Railing Details, see Dwgs. No. R1 & R2.

Recommended by:
PRAEGER - KAVANAGH
CONSULTING ENGINEERS

In Charge of .....
Made by S.N.C.Y.
Traced by S.N.
Checked by M.S.R.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 Pt. II

STRUCTURE NOS. 36A & 36B
LINE E OVER NORTH 1st STREET
SLAB PLANS AND DETAILS I

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	As Shown
DATE	Aug. 1961
DRAWING NO.	36-3
SHEET NO.	54

K-10-128

Index Of Sheets (See Sheet IA)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

TENN.	YEAR	SHEET NO.
	1998	1
FED. AID PROJ. NO.	IME-65-3(97)83	
STATE PROJ. NO.	19010-8148-44	

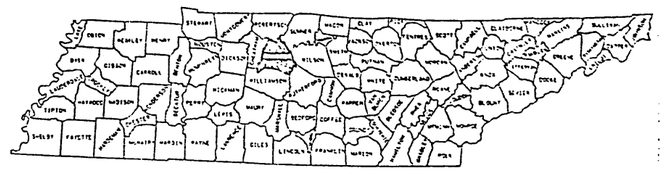
CAUTION !
THESE PLANS HAVE BEEN REDUCED AND ARE NOT TO SCALE SHOWN

DAVIDSON COUNTY

FROM: FERN AVE. NEAR I-265 INTERCHANGE (L.M. 86.11)
TO: SILLIMAN EVANS BRIDGE (L.M. 83.39)

RESURFACING

STATE HIGHWAY NO. F.A.H.S. NO. I-65



EXCLUSIONS	
STATION TO STATION	LENGTH (FT.)
224+28.42-228+07.87	379.45
238+21.58-240+41.88	220.30
247+75.47-250+97.76	322.29
260+45.81-262+50.43	204.62
264+69.82-266+59.16	189.34
TOTAL =	1,316.00

NO EQUATIONS

(19010-8148-44)
BEGIN PROJECT IME-65-3(97)83 RESURF.
STA.168+83.113

SCALE: 1"= 1/2 MILE

(19010-8148-44)
END PROJECT IME-65-3(97)83 RESURF.
STA.301+47.466 (L.M. 83.39)

ROADWAY LENGTH	2.282 MILES
BRIDGE LENGTH	0.000 MILES
BOX BRIDGE LENGTH	0.000 MILES
PROJECT LENGTH	2.282 MILES

TRAFFIC DATA	
ADT (1998)	126400
ADT (2018)	139800
D.H. (2018)	15,960
D	55 - 45
T (ADT)	14 %
T (DH)	11 %
V	55 MPH

APPROVED: _____ DIRECTOR, DESIGN DIVISION
DATE: _____
APPROVED: _____ COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____
DIVISION ADMINISTRATOR — DATE

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 1985 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

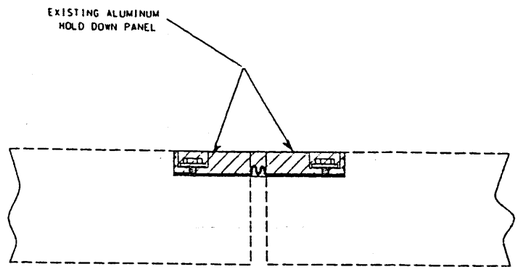
ROOT ROAD SP. SW. 2 GARY HAAK

DESIGNED BY: K. E. MAAS P. DAVID O'BRIEN DETAILED BY: BILL MORRIS

P.E. NO. _____

TABULATION OF BRIDGE RELATED WORK AND ESTIMATED QUANTITIES

LOCATION OF BRIDGE AND BRIDGE NUMBER	REFERENCE DRAWINGS TO BE PRINTED WITH CONTRACT DRAWINGS	TYPE OF WORK	604-10.30 BRIDGE DECK REPAIR (FULL DEPTH OF SLAB) SY	604-10.50 BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB) SY	604-10.44 EXPANSION JOINT REPAIR LF	LOCATION OF EXPANSION JOINT REPAIR
19-165-9.81/ WOODLAND ST. STA. 264+69.82		BRIDGE DECK REPAIR	170	10		
19-165-9.89/ MAIN ST. STA. 260+45.81		BRIDGE DECK REPAIR	280	10		
19-165-10.11/ ODLHAM ST.& CSX RR STA. 247+75.47	M-130-54 M-130-64	BRIDGE DECK REPAIR EXPANSION JOINT REPAIR	110	10	148	EXPANSION JOINT AT BENT NUMBER 3
19-165-10.54/ N. FIRST ST. STA. 224+28.42	M-130-1 M-130-7 M-130-16	EXPANSION JOINT REPAIR			644	EXPANSION JOINT AT BENT NUMBER 1 AND 3
TOTAL			560	30	792	



DETAIL SHOWING THE REMOVAL OF EXISTING JOINT

CONST. NO. 19010-8148-44

PROJECT NO.	YEAR	SHEET NO.
IME-65-3(97)83	1998	2

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

NOTES:

EXPANSION JOINT REPAIR:

XJS EXPANSION JOINT SYSTEM INCLUDES FURNISHING ALL MATERIALS AND EQUIPMENT. COMPLETE INSTALLATION AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE JOINT SEALANT SYSTEM CONSISTS OF ELASTOMERIC CONCRETE HEADER A SURFACE PRIMER: A SELF-LEVELING OR NON-SAG SEALANT AND BACKER MATERIAL. DETAILED SPECIFICATIONS AND INSTALLATION PROCEDURES SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. THE MANUFACTURER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORKMANSHIP AND PERFORMANCE OF THE INSTALLED JOINT.

JOINT SEALANT:

THE JOINT SEALANT WILL BE A POURABLE, COLD APPLIED (TWO COMPONENT) RAPID-CURING, SELF LEVELING MATERIAL WHEN INSTALLED ON GRADES LESS THAN OR EQUAL TO 3% ALONG THE CENTERLINE OF THE JOINT. PRIOR TO PREPARING THE JOINT SEALANT, THE MANUFACTURER'S REPRESENTATIVE WILL BE CONSULTED TO ESTABLISH THE USABLE POT LIFE OF THE MATERIAL TO BE MIXED CONSIDERING THE AMBIENT TEMPERATURE AT THE TIME OF MIXING. WHEN MIXING HAS BEEN COMPLETED THE AGE OF THE MIXTURE WILL BE TIMED AND THE MATERIAL WILL BE DISCARDED WHEN THE MANUFACTURER'S PREDICTED POT LIFE HAS BEEN EXCEEDED. IF AT ANY POINT IN THE TIME DURING THE INSTALLATION OF JOINT SEALANT THE MANUFACTURER'S REPRESENTATIVE DETERMINES THAT THE MIXED JOINT SEALANT HAS CURED TO A POINT WHERE IT CAN NOT BE PROPERLY INSTALLED IT WILL BE DISCARDED.

SURFACE PRIMER:

THE JOINT SEALANT MUST BE APPLIED TO CONCRETE SURFACES WITH THE USE OF A SPECIAL PRIMER FOR EACH APPLICATION. THE VERTICAL FACES OF THE JOINT RECEIVING SURFACE PRIMER ARE TO BE FREE OF DUST PARTICLES, MOISTURE, OILS AND LAITANCE AT THE TIME THE SURFACE PRIMER IS APPLIED. PER THE MANUFACTURER'S REQUIRMENTS. THE SURFACE PRIMER WILL BE FULLY CURED BEFORE THE JOINT SEALANT IS INSTALLED. THE MANUFACTURER'S APPROVAL AND INSTALLATION PROCEDURES FOR A SPECIAL PRIMER MUST BE GIVEN TO THE PROJECT ENGINEER IN WRITING BEFORE THE PRIMER IS INSTALLED.

BACKER ROD:

THE BACKER ROD SHALL BE A CLOSED CELL, NON-GASSING FOAM MATERIAL CAPABLE OF WITHSTANDING ELEVATED TEMPERATURES RESULTING FROM THE REACTION OF THE TWO COMPONENT SEALANT THAT MAY OCCUR. THE MATERIAL TYPE IS TO BE APPROVED BY THE JOINT SEALANT SYSTEM MANUFACTURER AND TESTED IN ACCORDANCE WITH ASTM D545. A LETTER OF CERTIFICATION SHALL BE ISSUED TO TDOT MATERIALS AND TESTS DIVISIONS BY THE MANUFACTURER WITH EACH DELIVERY OF MATERIALS ON THE SITE. FIRST SHIPMENT SHALL INCLUDE A COPY OF THE MANUFACTURER'S QUALITY ASSURANCE PROGRAM LISTING ALL TESTING CRITERIA.

JOINTS:

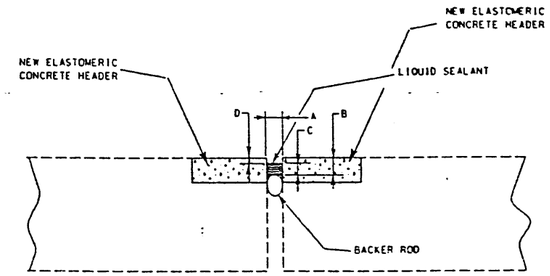
ALL EXISTING JOINT OPENINGS SHALL BE THOROUGHLY CLEANED OF FOREIGN MATERIAL AND EXISTING JOINT MATERIAL BEFORE PLACING THE NEW EXPANSION JOINTS.

NOTES:

COST OF REMOVAL OF EXISTING JOINT ASSEMBLY, PREPARATION OF JOINT LOCATION, INSTALLING NEW XJS EXPANSION JOINT SYSTEM, LABOR, AND ANY MISCELLANEOUS MATERIALS NECESSARY TO INSTALL THE NEW EXPANSION JOINT TO BE INCLUDED UNDER ITEM NO. 604-10.44 EXPANSION JOINT REPAIRS, L.F.

TOP 3" OF JOINT SHALL BE BLAST CLEANED TO REMOVE LAITANCE AND OTHER DELETERIOUS MATERIAL BEFORE INSTALLATION OF BACKER ROD OR SEALANT.

ALL DEBRIS AND EXISTING JOINT MATERIAL SHALL BE REMOVED FOR THE FULL DEPTH OF THE EXISTING JOINT OPENING.



DETAIL "A"
(EXPANSION JOINT DIAGRAM)

A	B	C	D
JOINT OPENING AT TIME OF SEALING	MINIMUM SPACE FROM TOP OF BACKER ROD TO DRIVE SURFACE	DEPTH OF 902 RCS FROM TOP OF BACKER ROD TO SURFACE OF 902 RCS	MINIMUM SPACE FROM TOP OF 902 RCS TO DRIVE SURFACE
UP TO 3"	1 3/8" MIN.	1/2" - 5/8"	3/4" MIN.
ABOVE 3"	1 3/4" MIN.	5/8" - 3/4"	1" MIN.

* LOGGED FROM WITHIN THE COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGE TABULATIONS AND ESTIMATED QUANTITIES

165

* FROM (L.M.9.09) TO (L.M. 11.65)

DAVIDSON CO.

1998

DESIGNED BY Jim Owens DATE 10-95
DRAWN BY R.L. Vill DATE
SUPERVISED BY R.L. Vill & JC DATE
CHECKED BY R.L. Vill DATE

LAST REV. 1-25-95

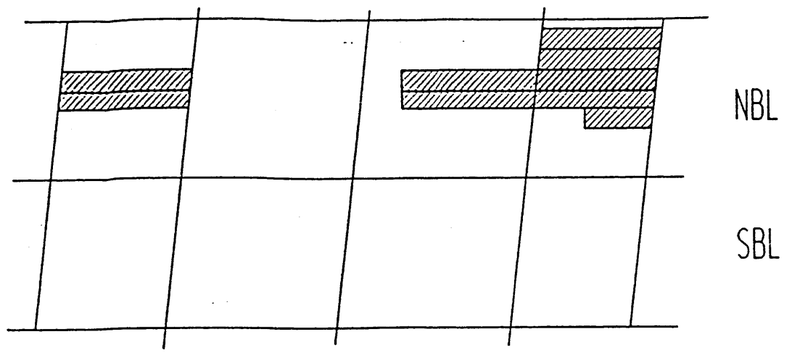
CONST. NO. 19010-8148-44

PROJECT NO.	YEAR	SHEET NO.
IME-65-3(97)83	1998	2A

REVISIONS

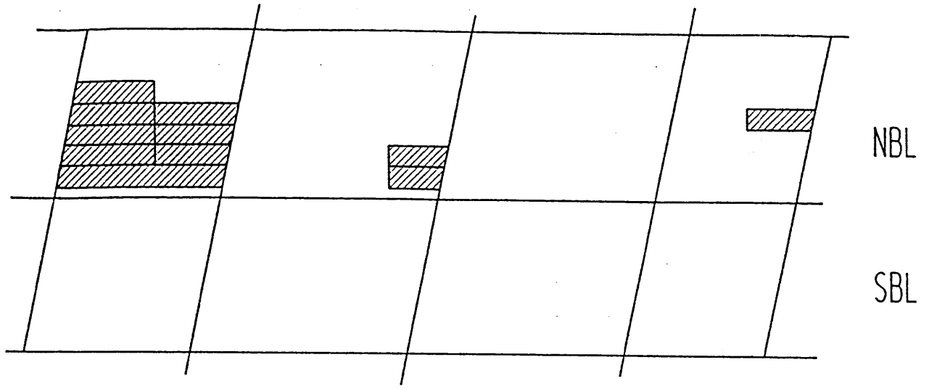
NO.	DATE	BY	BRIEF DESCRIPTION

▨ DENOTES THE APPROXIMATE LOCATIONS OF FULL DEPTH BRIDGE DECK REPAIRS. ALL AREAS ARE APPROXIMATE AND CAN BE INCREASED, DECREASED OR ELIMINATED. ACTUAL AREAS OF FULL DEPTH DECK ARE TO BE DETERMINED BY PERSONNEL FROM THE HEADQUARTERS. BRIDGE INSPECTION AND REPAIR OFFICE.



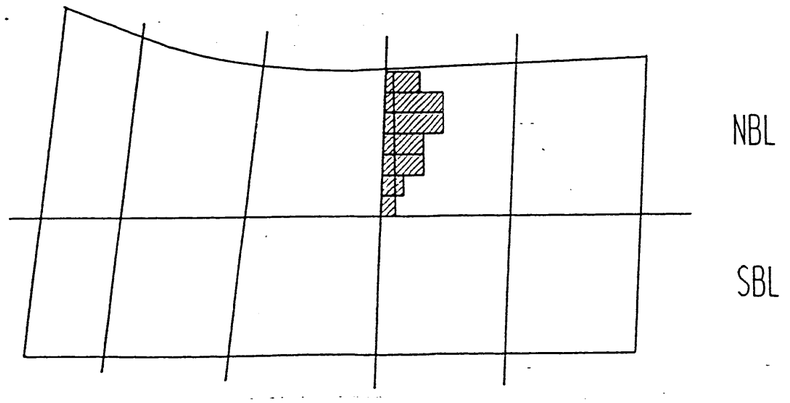
19-165-9.81 / WOODLAND ST.

STA. 264+69.82-266+59.16



19-165-9.89 / MAIN ST.

STA. 260+45.81-262+50.43



19-165-10.11 / OLDHAM ST. & CSX RR

STA. 247+75.47-250+97.76

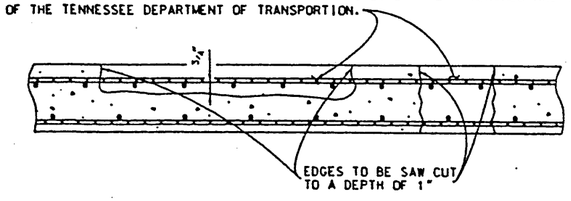
POWER DRIVEN HAND TOOLS:

POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING PARTIAL AND FULL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS: (1) PARTIAL DEPTH REPAIRS: PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60 lbs. CLASS SHALL NOT BE USED. ALSO TRAFFIC CONTROL SHALL BE SET UP DURING PARTIAL DEPTH REPAIRS OVER TRAFFIC. (2) FULL DEPTH REPAIRS: PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 90 lbs. CLASS SHALL NOT BE USED. ALSO ALL DECK REPAIR OVER BEAMS WILL BE RESTRICTED TO 60 lbs. PNEUMATIC HAMMERS. (3) CHIPPING HAMMERS OF THE 15 lbs. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.

BRIDGE DECK REPAIR MATERIAL

IF OVERNIGHT LANE CLOSURES ARE PROVIDED FOR THIS PROJECT AND THE LANE CLOSURES ARE SUCH THAT TRAFFIC WILL BE KEPT OFF THE BRIDGE DECK WHERE DECK REPAIRS WILL BE MADE. THEN HIGH EARLY STRENGTH CONCRETE SHALL BE USED WITH A COMPRESSIVE STRENGTH OF 3,000 lbs. AT 18 HOURS. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT PROPOSED CONCRETE MIX WILL OBTAIN REQUIRED PROPERTIES. PROOF SHALL BE PROVIDED BY AN INDEPENDENT TESTING COMPANY AND SUBMITTED TO THE MATERIAL AND TEST DIVISION OF TENNESSEE DEPARTMENT OF TRANSPORTATION FOR APPROVAL. THE MIX TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS CLASS "A". EXCEPT THE CEMENT SHALL BE A MINIMUM OF 714 lbs. A HIGH RANGE, WATER REDUCING ADMIXTURE (SUPERPLASTICIZER) SHALL BE USED SUBJECT TO THE APPROVAL OF AND THE CONCRETE SHALL ATTAIN A MINIMUM OF COMPRESSIVE STRENGTH OF 3,000 lbs. IN 18 HOURS. TRAFFIC SHALL NOT BE ALLOWED ON REPAIRED AREAS UNTIL THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF 18 HOURS

CONCRETE FOR DECK REPAIR SHALL BE HIGH EARLY STRENGTH WITH A COMPRESSIVE STRENGTH OF 3,000 lbs. AT 18 HOURS AND APPROVED BY THE MATERIALS AND TEST DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTION.



SKETCH SHOWING DECK REPAIR

NOTE: REMOVE CONCRETE IN ALL DELAMINIATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED. CLEANING SHALL BE DONE PRIOR TO PLACING NEW CONCRETE OR INSTALLING PATCHING MATERIAL. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM THE HEADQUARTERS. BRIDGE INSPECTION AND REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE.

NOTE: ITEM NO. 604-10.50, BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB), AND ITEM NO. 604-10.30, BRIDGE DECK REPAIR (FULL DEPTH OF SLAB), SHALL BE BID WITH THE CONTINGENCY THAT THIS MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.

* LOGGED FROM WITHIN THE COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGE TABULATIONS AND ESTIMATED QUANTITIES

165

* FROM (L.M.9.09) TO (L.M. 11.65)

DAVIDSON CO.

1998

DESIGNED BY J. Cross DATE 10-95
DRAWN BY Rick Hill DATE
SUPERVISED BY Rick Hill for JC DATE
CHECKED BY Rick Hill DATE

LAST REV. 1-25-95

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	4-15-85	HMB	ADDED SPECIAL PROVISION 604

CURVE DATA

P.I. = 224+91.34
Δ = 2° 07' 41.71"
D = 0° 28' 40.0"
T = 722.747 FT.
L = 445.443 FT.
R = 11,992 FT.
E = 2.069 FT.
SE = .0156 FT/FT.

P.I. = 238+31.44
Δ = 15° 54' 10"
D = 0° 42' 58"
T = 1117.41 FT.
L = 2220.46 FT.
R = 8000 FT.
E = 77.66 FT.
SE = .0156 FT/FT.

● SEE DWG. M-130-2, FOR CONSTRUCTION SEQUENCE

LIST OF DRAWINGS

DRAWING	DWG. No.	LAST REV. DATE
LAYOUT	M-130-1	
GENERAL NOTES	M-130-2	
ESTIMATED QUANTITIES	M-130-3	
SUPERSTRUCTURE	M-130-4	
PLAN OF MAIN REINFORCEMENT	M-130-5	
SLAB PLAN-SPAN No. 1	M-130-6	
SLAB PLAN-SPANS No. 2&3	M-130-7	
SLAB PLAN-SPAN No. 4	M-130-8	
FRAMING PLAN	M-130-9	
SUPPORT DIAPHRAGM DETAILS	M-130-10	
INTERMEDIATE DIAPHRAGM DETAILS	M-130-11	
GIRDER DETAILS	M-130-12	
BEARING PAD DETAILS	M-130-13	
CASTING DETAILS	M-130-14	
JACKING DETAILS	M-130-15	
EXPANSION JOINT MOD. DETAILS	M-130-16	
S.S. DETAILS @ ABUTMENT No. 1	M-130-17	
S.S. DETAILS @ ABUTMENT No. 1 CONTD.	M-130-18	
S.S. DETAILS @ ABUTMENT No. 2	M-130-19	
S.S. DETAILS @ ABUTMENT No. 2	M-130-20	
S.S. DETAILS @ ABUT. No. 2 CONTD.	M-130-21	
S.S. DETAILS @ ABUT. No. 2 CONTD.	M-130-22	
ABUTMENT No. 1	M-130-23	
ABUTMENT No. 1 CONTD.	M-130-24	
ABUTMENT No. 1 CONTD.	M-130-25	
ABUTMENT No. 2	M-130-26	
ABUTMENT No. 2 CONTD.	M-130-27	
ABUTMENT No. 2 CONTD.	M-130-28	
BENTS No. 1, 2 & 3	M-130-29	
BENTS No. 1, 2 & 3 CONTD.	M-130-30	
BENTS No. 1, 2 & 3 CONTD.	M-130-31	
BENT DETAILS	M-130-32	
EXISTING BENT DETAILS	M-130-33	
BILL OF STEEL	M-130-34	
BILL OF STEEL	M-130-35	
BILL OF STEEL	M-130-36	
BILL OF STEEL	M-130-37	
BILL OF STEEL	M-130-38	

LIST OF STANDARD DRAWINGS

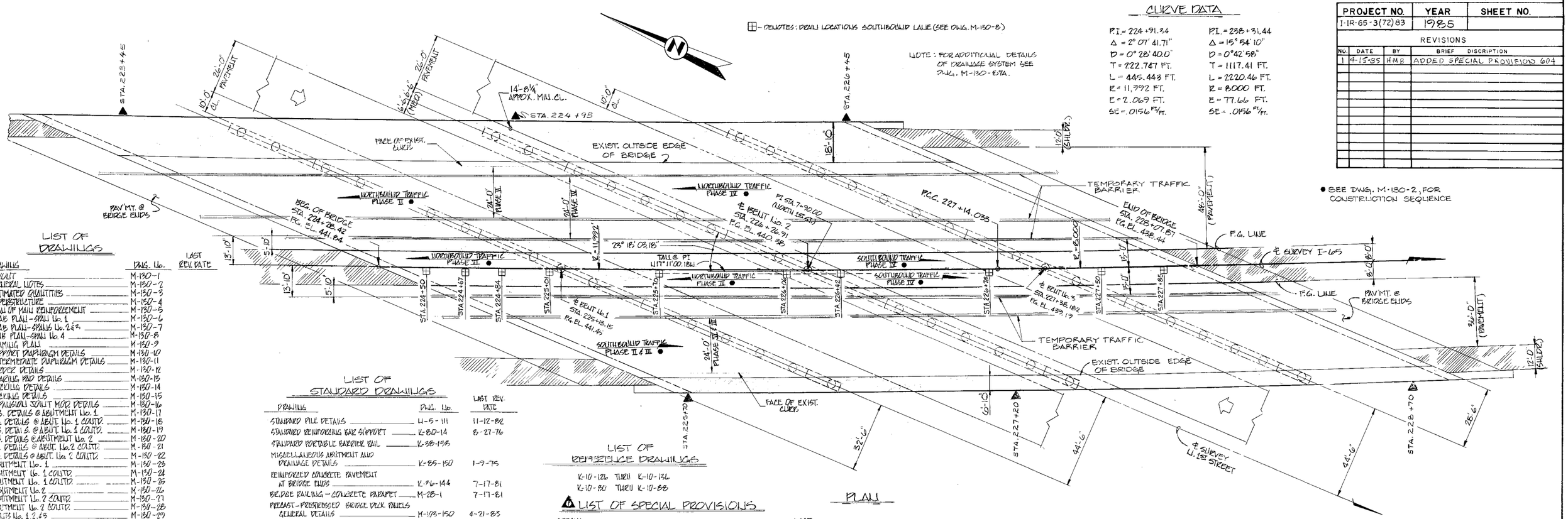
DRAWING	DWG. No.	LAST REV. DATE
STANDARD PILE DETAILS	U-5-111	11-12-82
STANDARD REINFORCING BAR SUPPORT	K-80-14	8-27-76
STANDARD PORTABLE BARRIER RAIL	K-38-155	
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	K-85-150	1-9-75
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	K-96-144	7-17-81
BRIDGE RAILING - CONCRETE PARAPET	M-28-1	7-17-81
PRECAST-PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	M-103-150	4-21-83
PRECAST-PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	M-103-149	4-21-83
STANDARD EXPANSION & EDGE PAVEMENT JOINTS	EP-3-11	7-17-81
STANDARD ELASTIC JOINT SEALS	EP-3-13	
SUPPORT DETAILS FOR LIGHT STANDARDS	M-8-149	11-20-75

LIST OF REFERENCE DRAWINGS

K-10-126 THRU K-10-136
K-10-80 THRU K-10-88

⚠1 LIST OF SPECIAL PROVISIONS

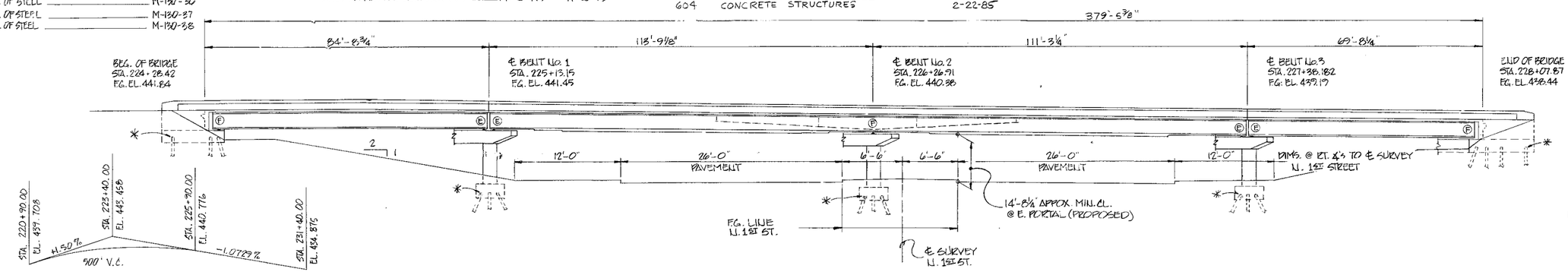
SPECIAL PROVISION No.	REGARDING	LAST REV. DATE
105A	APPROVAL OF SHOP DRAWINGS	9-8-81
602	SECTION 602 - STEEL STRUCTURES	5-31-83
604A	CLASS 'A' CONCRETE FOR BRIDGE DECKS	12-20-82
907A	EPOXY COATED REINFORCING STEEL	4-18-83
604	CONCRETE STRUCTURES	2-22-85



PLAN

⚠ DENOTES: LOCATION OF LIGHT STANDARD SUPPORTS.

NOTE: TWO 12'-0" TRAFFIC LANES SHALL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES.



ELEVATION
(AT RT. ANGLES TO ℄ SURVEY)

NOTE.
WIDENING OF SIMPLE SPAN COMPOSITE STEEL ROLLED BEAM/WELDED PLATE GIRDER BRIDGE, MAKING SPANS 2&3 CONTINUOUS. SPANS 1 & 4 TO BE LEFT SIMPLE.

GRADE SKETCH

NOTE: ELEVATIONS GIVEN ARE BASED ON FINISHED GRADE.

✱ - DENOTES: SEE SUBSTRUCTURE DRAWINGS FOR P.G.O. ELEVATIONS.

DESIGNED BY WAP DATE 1-83
DRAWN BY SDB DATE 1-83
SUPERVISED BY JLC & JMB DATE 1-83
CHECKED BY WAP DATE 1-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

LAYOUT (BRIDGE No. 1)
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellan L. Lewis V

APPROVED Lewis Evans

7/10/83

M-130-1

Class "A" Grading "D" 322 c.u.

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (MARCH, 1981 EDITION)

CONCRETE: TO BE CLASS "A", F'C = 3000 PSI. UNLESS NOTED OTHERWISE, SEE SPECIAL PROVISION 604A FOR SUPERSTRUCTURE.

REINFORCING STEEL: TO BE ASTM A615 GRADE 60. STANDARD CRSI HOOK DETAILS APPLY UNLESS OTHERWISE NOTED ON BILL OF STEEL. BENDING DIMENSIONS SHOWN ARE BASED ON GRADE 60. SPACING DIMENSIONS ARE CENTER TO CENTER UNLESS OTHERWISE NOTED ON DETAIL DRAWINGS. THE SUFFIX E FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT. SEE SPECIAL PROVISION 907A

SPECIAL NOTE: FOUNDATIONS FOR BENTS SHALL BE EXCAVATED TO THE BOTTOM OF FOOTING ELEVATIONS SHOWN; ROD SOUNDINGS SHALL THEN BE MADE AS DIRECTED BY THE ENGINEER. FROM THE RESULTS OBTAINED THE ENGINEER WILL DECIDE IF PILES WILL BE USED OR THE FOOTINGS CARRIED TO ROCK. COST OF ROD SOUNDINGS TO BE INCLUDED IN ITEMS BID ON. NO REINFORCING STEEL FOR BENT COLUMNS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

PILES: TO BE HP10X42 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 55 TONS FOR THE BENTS AND 45 TONS FOR THE ABUTMENTS.

SHOP DRAWINGS: SEE SPECIAL PROVISION NO. 105A.

THE REINFORCED CONCRETE MEDIAN BARRIER RAIL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON DRAWING M-130-4 AND SHALL BE GIVEN A TEXURED COATED FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO OFF WHITE, FEDERAL SPECIFICATION NO. 37778. THE COST OF THE FINISH AND REINFORCING STEEL DETAILED SHALL BE INCLUDED IN THE LINEAR FOOT PRICE BID FOR THE MEDIAN RAIL.

THE CONTRACTOR SHALL CHECK THE LOCATION OF ALL EXISTING SUBSTRUCTURES AND VERIFY SPAN LENGTHS BEFORE FABRICATING GIRDERS.

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH ADDENDA

PAINT: SYSTEM B - INORGANIC ZINC - VINYL SYSTEM - BROWN TOP COAT - FOR PREPARATION OF SURFACES SEE TENNESSEE STANDARD SPECIFICATION 602.05 (b) - (TYPICAL FOR NEW AND EXISTING STRUCTURES

RADIOGRAPHIC, ULTRASONIC, AND MAGNETIC INSPECTION: SEE SPECIAL PROVISION NO 602, NOTES ON DRAWING NO. M-130-4

STEEL STRUCTURES: SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602 AND NOTES ON DRAWING NO. M-130-4

REINFORCED CONCRETE SLOPE PAVING: PAVE SLOPES AND EXPOSED EARTH UNDER BRIDGES WITH 4" THICK CEMENT CONCRETE SLAB REINFORCED WITH NO. 4 GAGE WIRE FABRIC @ 6" CENTERS AND 58 LBS. PER 100 S.F. THE WIRE FABRIC REINFORCEMENT SHALL BE PLACED AT ONE-HALF THE DEPTH OF THE SLAB AND EXTEND TO WITHIN 3" OF ITS EDGE WITH A 12" LAP REQ'D. ON ALL SHEETS, THE COST OF THE WIRE FABRIC REINFORCEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM 709-04, REINFORCED CONCRETE SLOPE PAVEMENT. ONE-HALF INCH PREMOULDED EXPANSION JOINTS WITHOUT LOAD TRANSFERS SHALL BE FORMED ABOUT ALL STRUCTURES AND FEATURES PROJECTING THROUGH, IN OR AGAINST THE SLAB. THE SLAB SHALL BE GROOVED PARALLEL WITH AND AT RIGHT ANGLES TO THE UNDER ROADWAY CENTER LINE AT 6' CENTERS. DEPTH OF GROOVE TO BE NOT LESS THAN 1". (SEE STD DRAWING RD-SA-1 FOR LIMITS AT SLOPE PROTECTION.

NON-PAY ITEMS: ONLY ITEMS SHOWN ON THE PROPOSAL AS PAY ITEMS WILL BE PAID FOR. COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS FOR THE ENTIRE CONTRACT SHALL BE INCLUDED IN THE PRICE BID FOR PAY ITEMS.

LOADING: HS20-44 WITH ALTERNATE MILITARY.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS MAY BE EITHER REMAIN-IN-PLACE STEEL OR PRECAST, PRESTRESSED CONCRETE PANELS. IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO SUPPORT MEMBERS. THE CONTRACTOR SHALL TAKE STEPS TO ASSURE THE STABILITY OF THE EXTERIOR GIRDER AGAINST TWISTING OR OVERTURNING DURING SLAB POURING OPERATIONS.

BRIDGE RAIL SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING NO. M-28-1.

GROUTED BARS IN DRILLED HOLES: HOLES FOR GROUTED BARS ARE TO BE DRILLED 1/2" Ø LARGER THAN THE BAR. AFTER CLEANING HOLE, PACK WITH GROUT AND DRIVE BAR TO ITS SEAT. APPROVED GROUTS ARE: EPI TOP 100 (CELANESE COATING CO.); COLMA-DUR OR SIKASTIX 370 (SIKA CHEMICAL CORP.); FX-75 HYDRO-ESTER BONDING AGENT (FOX INDUSTRIES) AND FEL-POXY 102 (FEL-PRO BUILDING PRODUCTS, INC.).

CLASS "A" CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY SPECIAL PROVISION 604A.

ALL FILL SHALL BE IN PLACE PRIOR TO EXCAVATING FOR BENT FOOTINGS. AFTER CONSTRUCTING THE BENT, EXTREME CARE SHALL BE TAKEN WHEN BACKFILLING SO AS NOT TO DAMAGE OR MISALIGN BENT.

LINSEED OIL PROTECTIVE TREATMENT: SURFACES RECEIVING TEXTURED COATED FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT, SEE TEXTURED COATING DETAIL ON THIS SHEET.

WELDING: SEE SPECIAL PROVISION NO. 602 AND NOTES ON DRAWING NO. M-130-4.

BEARING DEVICES SHALL BE IN ACCORDANCE WITH THE DETAILS AND DIMENSIONS SHOWN ON DRAWING M-130-13. THE CONTRACTOR MAY ALSO SUBMIT ALTERNATE DETAILS FOR APPROVAL.

A BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH NOTE (b), SHEET 2 OF SPECIAL PROVISION 604.

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO	DATE	BY	BRIEF DISCRIPTION
1	4-15-85	HMB	ADDED NOTE
2	10-6-86	HMB	COLOR FROM 20140 TO 20059

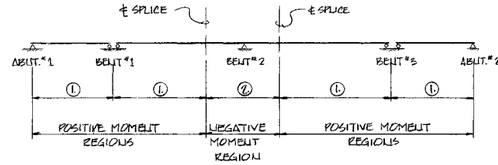
CONSTRUCTION SEQUENCE

PHASE I
1- RAISE BRIDGE UNIFORMLY 5".
2- LOCK BEARING DEVICES, AS DETAILED.
3- BUILD ALL SUBSTRUCTURES.
4- POSITION ALL NEW GIRDERS.
5- SCARIFY SLAB SURFACES.

PHASE II
1- PLACE PORTABLE BARRIER RAIL ON EXIST. BRIDGE.
2- REROUTE TRAFFIC TO OUTSIDE OF EXIST. BRIDGE.
3- REMOVE EXIST. MEDIAN CURB, BRIDGERAIL, AND SLAB AS REQUIRED.
4- ALTER EXIST. GIRDERS IN AREAS NOT UNDER TRAFFIC AS REQUIRED BY DETAILS.
5- POUR NEW SLAB IN MEDIAN AREA AND OVER EXIST. BEAMS IN AREAS NOT UNDER TRAFFIC.

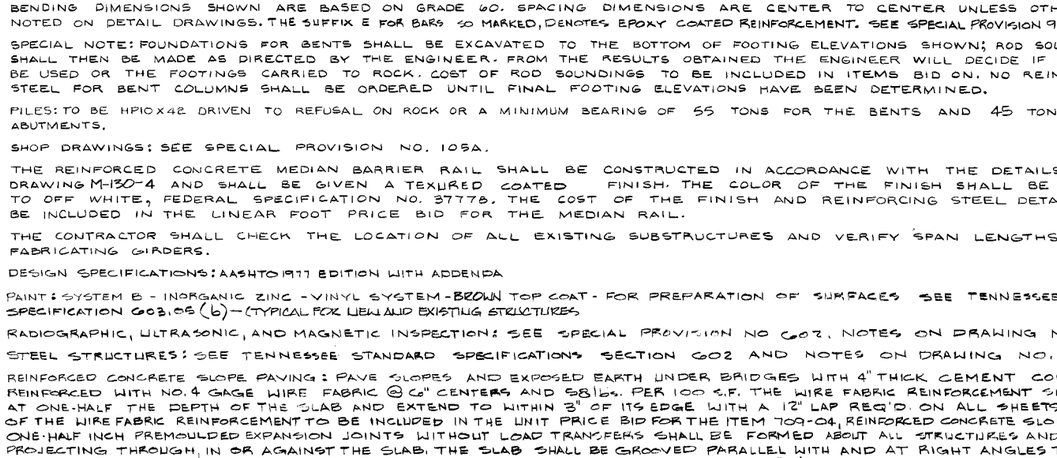
PHASE III
1- PLACE TEMPORARY ASPHALT FILLER ALONG ℄ OF BRIDGE. REROUTE NORTHBOUND TRAFFIC TO MEDIAN AREA AND SHIFT PORTABLE BARRIER RAIL AS NECESSARY TO KEEP TRAFFIC AWAY FROM EAST SIDE OF BRIDGE.
2- REMOVE EXIST. CURB, BRIDGERAIL, AND SLAB ALONG THE EAST SIDE OF THE BRIDGE AS REQUIRED.
3- ALTER EXIST. GIRDERS NOT UNDER TRAFFIC AS REQUIRED BY DETAILS.
4- POUR NEW SLAB AND PARAPET IN AREA NOT UNDER TRAFFIC ALONG EAST SIDE OF BRIDGE.

PHASE IV
1- REROUTE NORTHBOUND TRAFFIC TO EAST SIDE OF BRIDGE AND PLACE PORTABLE BARRIER RAIL AS REQUIRED.
2- REROUTE SOUTHBOUND TRAFFIC TO MEDIAN AREA.
3- REMOVE EXIST. CURB, BRIDGERAIL, AND SLAB ALONG THE WEST SIDE OF BRIDGE AS REQUIRED.
4- ALTER EXIST. GIRDERS NOT UNDER TRAFFIC AS REQUIRED BY DETAILS.
5- POUR REMAINING PORTIONS OF SLAB AND PARAPET ALONG WEST SIDE OF BRIDGE.
6- POUR MEDIAN BARRIER.



POURING SEQUENCE

NOTE: IN THE WIDENED PORTIONS THE SLAB SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING OR BOLTING IS COMPLETE. ALL POURS ARE TO BE MADE IN NUMERICAL SEQUENCE. POUR No. 1 SHALL PROCEED IN A DIRECTION FROM MID-SPAN TO THE ABUTMENT. POURS WITH THE SAME NUMERICAL DESIGNATION MAY BE MADE SIMULTANEOUSLY. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS DURING THE PLACEMENT OF THE SLAB TO PREVENT THE EXTERIOR GIRDER FROM TWISTING. NO PORTION OF THE PARAPETS OR MEDIAN BARRIER SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE.



APPLIED TEXTURE FINISH DETAIL

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATION. AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS 2 FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO OFF WHITE, FEDERAL SPECIFICATION No. (37778), FEDERAL COLOR STANDARD No. 595a, AND A COLOR SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. PAYMENT FOR THE APPLIED TEXTURE FINISH SHALL BE UNDER ITEM 604-04.01 AND 604-04.02 IN ADDITION TO THE REQUIREMENTS ABOVE, ALL EXPOSED SURFACES OF THE ABUTMENTS AND ALL EXPOSED LIGHTING CONDUIT SHALL RECIEVE AN APPLIED TEXTURE FINISH (OFF WHITE)(37778).

A BROWN (20059) TOP COAT SHALL BE APPLIED TO ALL EXPOSED STEEL SURFACES, NEW AND EXISTING.

DESIGNED BY WAP DATE 1-83
DRAWN BY D.K. Kelley DATE 1-83
SUPERVISED BY J.L. Collins DATE 1-83
CHECKED BY WAP & SDS DATE 6-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GENERAL NOTES
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellan L. Fowell

APPROVED Lewis Evans

M-130-2

Const. No. 19010-3124-44 (I)
Const. No. 19010-3124-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-16-85	JLV	Item 908-21.02.
2	10-4-85	HVB	Item 909-21.03 (Add Bent 2)
3	6-16-86	JMB	ADJUSTED QUANTITY @ ITEM 604-02.03

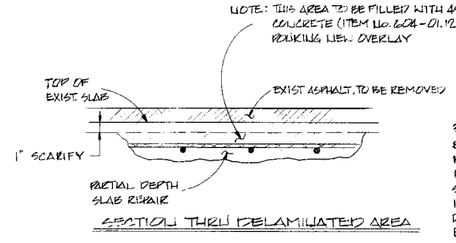
ESTIMATED QUANTITIES

ITEM No.	202-04.01	204-02.01	602-04.01	602-05.08		603-02.01	604-01.12	604-02.03	604-03.01	604-03.02	604-03.03	602-05.07	604-04.01	604-04.02
ITEM	REMOVAL OF STRUCT. (EXTERIOR PORTIONS) (STA. 226+26.91) L.S. ⑨	DRY EXC. (BRIDGES) C.Y. ②	STEEL STRUCTURES (STRUCT No. 1) L.S. ⑧	STANDARD ELAST. EXPANSION DEVICE L.F. ⑩⑪		REPAINTING EXISTING STEEL STRUCT (STRUCT NO. 1) L.S.	CLASS 'A' CONC. (BRIDGE DECK) C.Y.	EPOXY COATED REINF. STEEL LB.	CLASS 'A' CONC. (BRIDGES) C.Y. ⑨	STEEL BAR REINF (BRIDGES) LB.	LINSEED OIL TREATMENT S.Y. ⑬	PREFORMED ELASTIC JOINT SEALER L.F. ⑮	APPLIED TEXTURE FIN. (NEW STRUCT) S.Y.	APPLIED TEXTURE FIN (EXISTING STRUCT) S.Y.
SUPERSTRUCTURE							1202.1	257,587 ⑤		7,763	5,095			
ABUTMENT No. 1		149							126.0	15,906		332		
BENT No. 1		248		323					287.3	30,786				
BENT No. 2		310							284.6	30,261				
BENT No. 3		362		308					281.1	29,948				
ABUTMENT No. 2		139							117.4	14,594		307		
PAV'MT @ BR ENDS								14,919	387.2	29,184	1,620			
TOTAL	1	1208	1	631		1	1202.1	272,506 ⑤	1483.6	158,442	6,715	639	2,398	1563

ITEM No.	604-36	604-10.50	606-02.03	620-03	705-08.03	709-04	710-10	710-11	714-01.01	908.21.02 ①②	920-01.73
ITEM	SCARIFYING S.Y. ⑱	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y.	STEEL PILES (10") L.F	CONC. PARAPET L.F. ⑫	REINF. CONC. MEDIAN BARRIER (BRIDGES) L.F ⑭	REINF. CONC. SLOPE PVMT C.Y. ⑪	6" PERF C.M. PIPE (18 GA.) W/POROUS BACKFILL L.F. ③	6" C.M. PIPE UNDER DRAINS (18 GA) L.F.	STRUCT LIGHTING (BRIDGE NO 1) L.S. ㉑⑦	BEARINGS (M-130-13) EA.	JACKING STRUCT (STEEL SPANS) (BR. NO. 1) L.S ⑯
SUPERSTRUCTURE	2.543										
ABUTMENT No. 1			1398			27	170	34			
BENT No. 1			1630							12	
BENT No. 2			1304							6	
BENT No. 3			1184							12	
ABUTMENT No. 2			888			21	162	34			
PAV'MT @ BR ENDS	933		180								
TOTAL	3,476	350	6,584	809.1	428	48	332	68	1	30	1

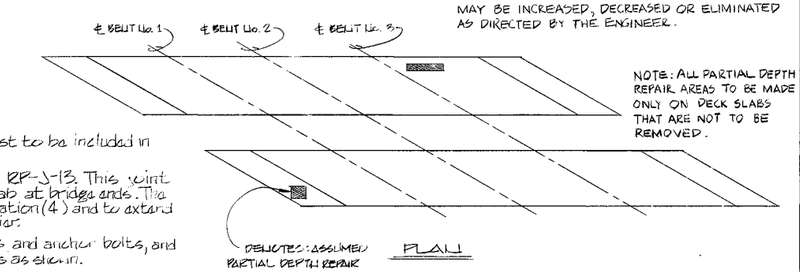
NOTES:

1. Pavement at Bridge Ends Quantities are included as an item in quanity box. under Abutment No. 2 and listed as "Pav'mt @ Br. Ends"
2. Excavation based on lower road profile.
3. Cost of polyethylene sheeting and all miscellaneous items necessary for installation to be included in cost of perforated C.M. Pipe.
4. The cost of 16 threaded steel inserts and 16 ⅞ ϕ x 4" hex head bolts, (A307), to be included in bridge items bid on.
5. The cost of removing the exterior portion of the existing slab, portions of the existing abutment, and the bridgerail shall be included in the unit price bid for item 202-04.01. All salvable material shall become property of the contractor.
6. All reinforcing steel in the traffic face of parapets shall be epoxy coated. Cost to be included in the price bid for item 620-03
7. Lump Sum for structural lighting item no. 714-01.01, includes 850ft. 2"ϕ conduit with pull wires, 4 pull boxes, 24 anchor bolts, and all necessary materials for installation of structural lighting. For underbridge lighting see sheet 160.
8. LUMP SUM: TOTAL ESTIMATED WEIGHT OF 583,050 LBS. OF STRUCTURAL STEEL INCLUDES: 380,886 LBS (A36) STEEL, AND 2164 LBS. (A53) STEEL. QUANTITIES INCLUDE: BOLTS, SHIMS, SHEAR CONNECTORS, DECK DRAINS, PIPE PLUGS, AND PIPING, ETC. ALSO SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602.53 AND 602.54.
9. Note: Cost of Rubber Bonding Cement and Elastomeric Bearing Pad to be included in unit price bid for "Class "A" Concrete
10. Note: Cost of bituminous-fiberboard, and all miscellaneous joint material to be included in bridge items bid on.
11. Note: Existing pavad areas required to be removed for construction of substructures shall be repaired in kind by the contractor. All costs to be included in items bid on.
12. Perforated C.M. Pipe to be used in outer portions of widening only.
13. Linseed Oil Treatment on deck and Pavement at Bridge Ends.
14. All reinforcing steel in median barrier rail shall be epoxy coated. Cost to be included in item 705-08.03.
15. Preformed Elastic Joint Sealer, type I-A, std. dwg. RP-J-11 and RP-J-13. This joint is between each abutment backwall and the reinforced concrete slab at bridge ends. The preformed elastic joint sealer shall be in one piece at each location (4) and to extend a 10" height (above roadway) at parapet and each side of median barrier.
16. This item also includes the full size steel bearings (5" thick), shims and anchor bolts, and all work to adjust bearings with bolts and angles, and splice plates as shown.
17. See drawing no. M-130-16.
18. The cost of removing any existing asphalt shall be included in the unit price bid for scarifying, Item No. 604-36.
19. The cost of the temporary asphalt filler in the median for temporary traffic control and removal of same to be included in bridge items bid on.
20. THE EXPANSION JOINT AT BENT 1 & BENT 3 SHALL BE EITHER DELAWARE EX CP200, ONFLEX 2.5, OR STEELFLEX RS200. THE CONTRACTOR MAY ALSO SUBMIT ALTERNATE DETAILS TO THE ENGINEER FOR APPROVAL. THE TOTAL REQUIRED MOVEMENT IS 2 INCHES. SHOP DRAWINGS OF THE PROPOSED DEVICE SHALL BE SUBMITTED TO THE ENGINEER OF STRUCTURES FOR APPROVAL. THE SHOP DRAWINGS SHALL PROVIDE INFORMATION REGARDING MATERIAL SPECIFICATIONS, GEOMETRY, A TABLE OF VARIABLE TEMPERATURES AND DIMENSIONS AND A BILL OF MATERIAL. IF IT IS NECESSARY TO MODIFY THE DESIGN DRAWINGS TO ACCOMODATE THE ROADWAY EXPANSION DEVICE ANY ADDITIONAL LABOR OR MATERIAL COST WILL BE AT THE CONTRACTOR'S EXPENSE. THE EXPANSION JOINT SHALL BE IN ONE PIECE AND EXTEND A 10" HEIGHT (ABOVE ROADWAY) AT PARAPET AND EACH SIDE OF MEDIAN BARRIER.
21. REFER TO ROADWAY PLANS FOR REQUIREMENTS AND INSTRUCTIONS REGARDING THE REMOVAL OF EXISTING STRUCTURE LIGHTING AND PAYMENT FOR SAME.



SECTION THRU DELAMINATED AREA

SPECIAL NOTE FOR DECK REPAIR: REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF ¾" BELOW THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL AREAS OF DELAMINATED REPAIR SHALL BE BLAST CLEANED. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM THE DIVISION OF STRUCTURES. DECK REPAIR TO BE PAID FOR UNDER ITEM No. 604-10.50, BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB), SQ. YD. ITEM 604-10.50 SHALL BE BID WITH THE CONTINGENCY THAT THIS ITEM MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.



PLAN

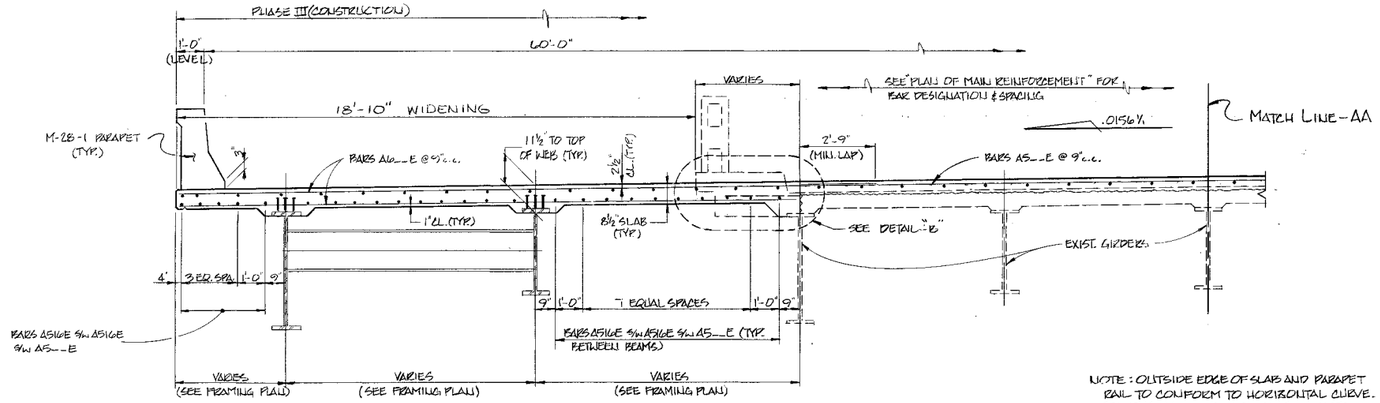
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ESTIMATED QUANTITIES
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION 1 - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WAP DATE 1-85
DRAWN BY BR DATE 5-85
SUPERVISED BY JLG & JMB DATE 5-85
CHECKED BY WAP & SVP DATE 6-85

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

M-130-3

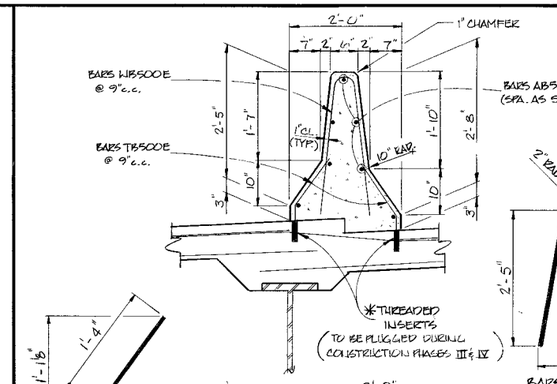


PART SECTION NEAR MID-SPAN

(TYP. NORTHBOUND LANES - SPANS No. 1 & 4)

NOTE: OUTSIDE EDGE OF SLAB AND PARAPET RAIL TO CONFORM TO HORIZONTAL CURVE. SEE DWG. M-130-9 FOR SLAB OFFSETS.

NOTE: THE CONCRETE DECK SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING AND BOLTING IS COMPLETE.



DETAIL - "A"

MEDIAN BARRIER RAIL DETAILS

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

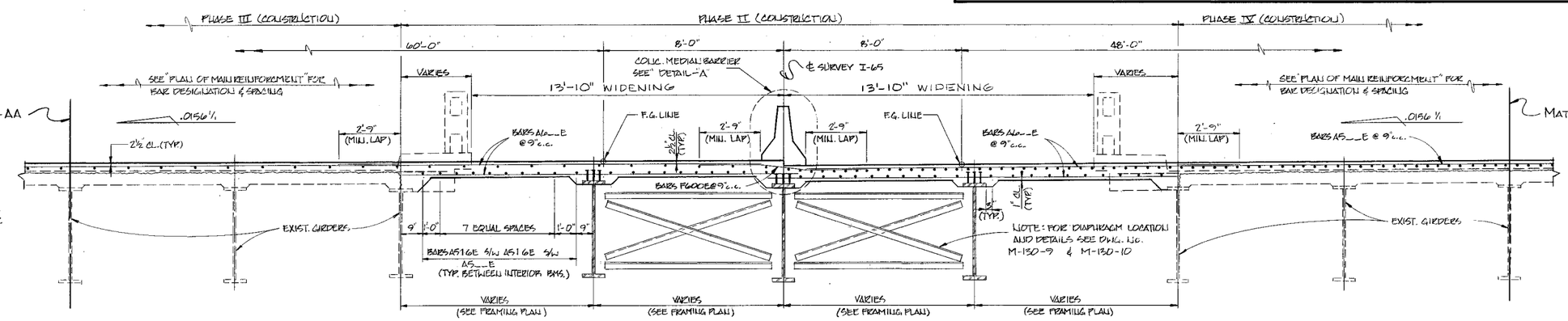
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

* NOTE: COST OF THREADED INSERTS FOR BARRIER TO BE PAID FOR UNDER ITEM No. 705-08.03

ESTIMATED QUANTITIES (PER FOOT)

APPLIED TEXTURE FINISH (NEW STRUCTURES) SY	CLASS "A" CONCRETE CY	EPOXY COATED REINFORCING STEEL LBS.
.719	.104	19.4



PART SECTION NEAR MID-SPAN

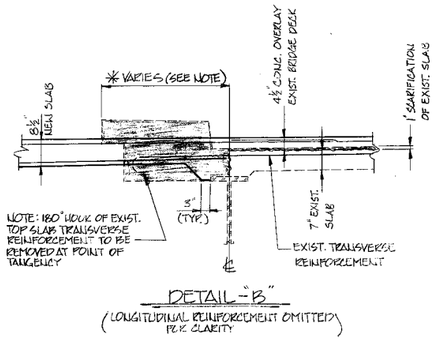
(TYP. NORTHBOUND LANES - SPANS No. 2 & 3)

TYPICAL CROSS-SECTION

PART SECTION NEAR SUPPORT

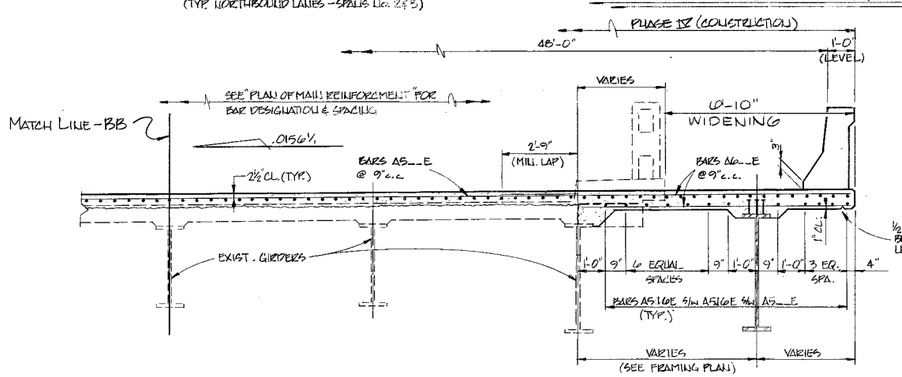
(TYP. SOUTHBOUND LANES - SPANS No. 2 & 3)

NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET AND THREADED INSERTS FOR MEDIAN BARRIER RAIL. PARAPET SHALL NOT BE POURED UNTIL SLAB IS POURED AND CURED. SEE DWG. No. M-28-1 FOR PARAPET DETAILS, MEDIAN BARRIER DETAILS THIS SHEET. ALSO SEE CONST. SEQUENCE ON DWG. No. M-130-2.



DETAIL - "B"

(LONGITUDINAL REINFORCEMENT OMITTED FOR CLARITY)



PART SECTION NEAR SUPPORT

(TYP. SOUTHBOUND LANES - SPANS No. 1 & 4)

* NOTE: EXISTING BRIDGERAIL, CURB, AND SLAB SHALL BE REMOVED TO THE APPROXIMATE ℄ OF THE EXISTING FASCIA GIRDER. CARE SHALL BE TAKEN TO PRESERVE TRANSVERSE STEEL IN TOP OF EXISTING SLABS. ALL SALVABLE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

NOTES

APPROVAL OF MATERIALS: NO FABRICATION SHALL BE STARTED UNTIL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS.

DUCTILITY OF MAIN MATERIALS: SEE SPECIAL PROVISION No. 602.

STRUCTURAL STEEL: SHALL CONFORM TO AASHTO M 183 (ASTM A36) UNLESS OTHERWISE NOTED. ALL STRUCTURAL STEEL FOR GIRDER FLANGES IN TENSION AND ALL WEBS SHALL MEET THE SUPPLEMENTAL REQUIREMENTS FOR LONGITUDINAL CHARPY V-NOTCH TESTS SPECIFIED IN AASHTO MATERIAL SPECIFICATIONS. ZONE 2 OF TABLE 51 SHALL APPLY.

WELDING: ANSI B3.1-80 STRUCTURAL WELDING CODE, AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, THIRD EDITION, 1981, AND SPECIAL PROVISION No. 602.

FIELD CONNECTIONS: SHALL BE ⅞" ℄ HIGH TENSILE STRENGTH BOLTS ASTM A325 UNLESS OTHERWISE NOTED. SEE AASHTO SPECIFICATIONS ART. 2.10.20. ALL HIGH STRENGTH BOLTED CONNECTIONS ARE FRICTION TYPE.

ADDITIONAL SHOP SPLICE NOTE: SHOP SPLICES NECESSARY DUE TO LENGTHS OR SIZE OF MATERIAL INVOLVED MAY BE LOCATED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER.

ADDITIONAL FIELD SPLICE NOTE: FIELD SPLICES NECESSARY DUE TO LENGTHS INVOLVED MAY BE LOCATED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER.

SHOP ASSEMBLY: PROGRESSIVE SHOP ASSEMBLY WILL BE ALLOWED. SEE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, ART. 2.10.14 (b).

UNLESS OTHERWISE NOTED, SEE AASHTO SPECIFICATIONS ART. 1.7.21 FOR MINIMUM SIZE OF FILLET WELD.

ESTIMATED QUANTITIES

CLASS "A" CONCRETE (BRIDGE DECK) (CY)	EPOXY COATED REINFORCING STEEL LBS.	STEEL BAR REINFORCEMENT LBS.
1202.1	246,343	7,763

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE WIDENING OF I-65 OVER NORTH 1st STREET

STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY	WAP	DATE 2-83
DRAWN BY	SDB	DATE 2-83
SUPERVISED BY	WAP & WMB	DATE 2-83
CHECKED BY	WAP	DATE 6-83

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES

APPROVED Lewis Donnell
DIRECTOR OF HIGHWAYS

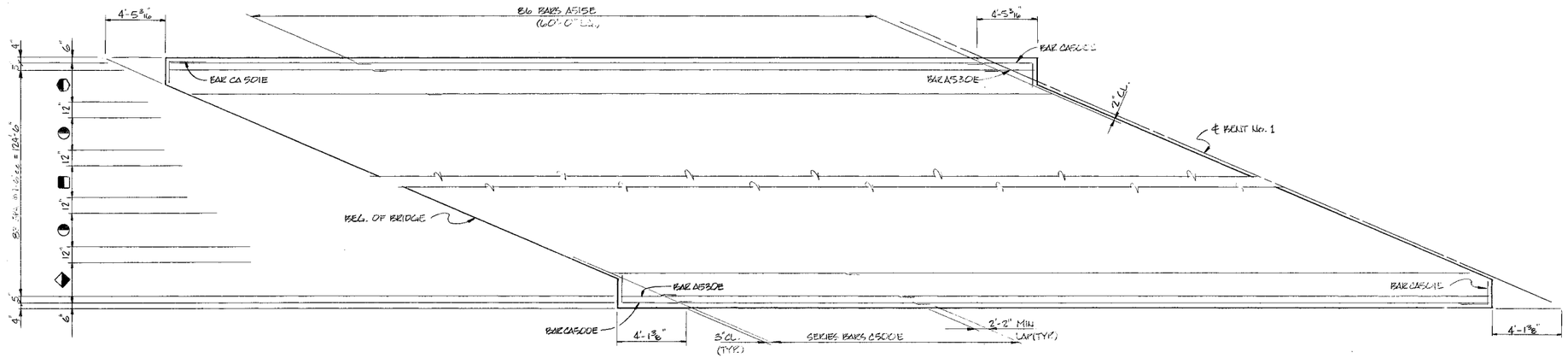
M-130-4

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44(IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

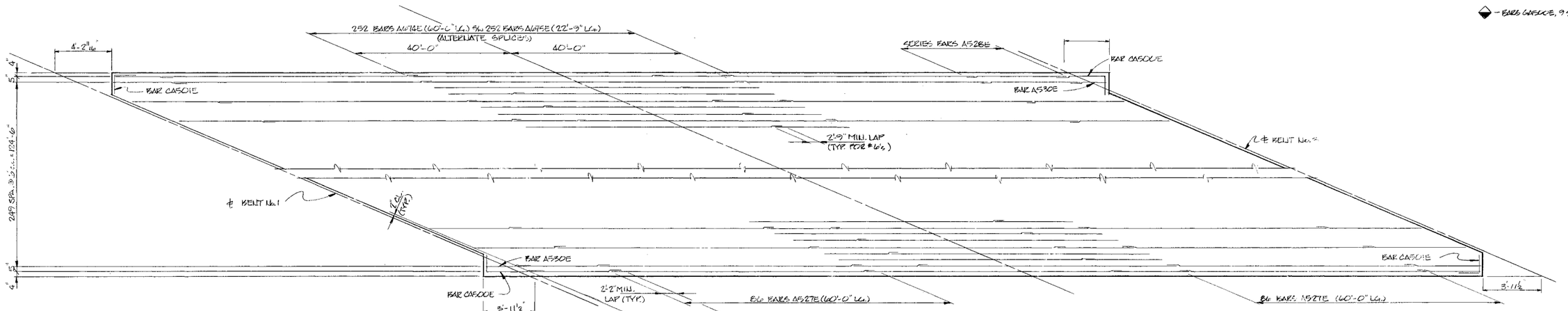
NO.	DATE	BY	BRIEF DESCRIPTION



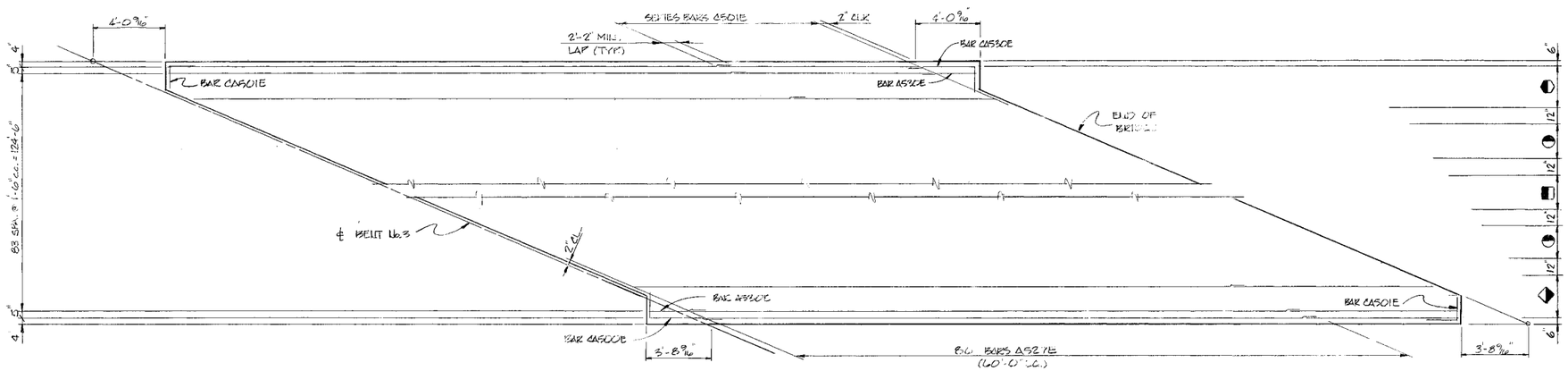
MAIN REINFORCEMENT – SPAN No. 1
(TOP OF SLAB)

LEGEND

- — BARS CA501E, 21 SPA. @ 1'-0" c.c. = 21'-0"
- — BARS CA501E, 29 SPA. @ 1'-0" c.c. = 29'-0"
- — BARS CA501E, 33 SPA. @ 1'-0" c.c. = 33'-0"
- — BARS CA501E, 9 SPA. @ 1'-0" c.c.



MAIN REINFORCEMENT – SPANS No. 2 & 3
(TOP OF SLABS)



MAIN REINFORCEMENT – SPAN No. 4
(TOP OF SLAB)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PLAN OF MAIN REINFORCEMENT
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY	KAF	DATE 2-83
DRAWN BY	SDR	DATE 3-83
SUPERVISED BY	[illegible]	DATE 3-83
CHECKED BY	KAF	DATE 6-83

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-130-5

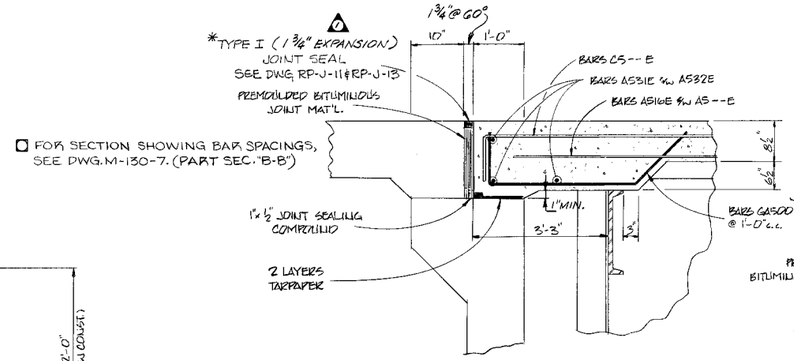
Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-1A-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	10-11-84	HMB	NOTE SPECIFYING JOINT TYPE.
2	6-16-86	JMB	ADDED BARS A56-E @ SLAB OVER BENT NO. 1

▲6 * NOTE: CONTRACTOR MAY SUBSTITUTE EVAZOTE SO JOINT SYSTEM.

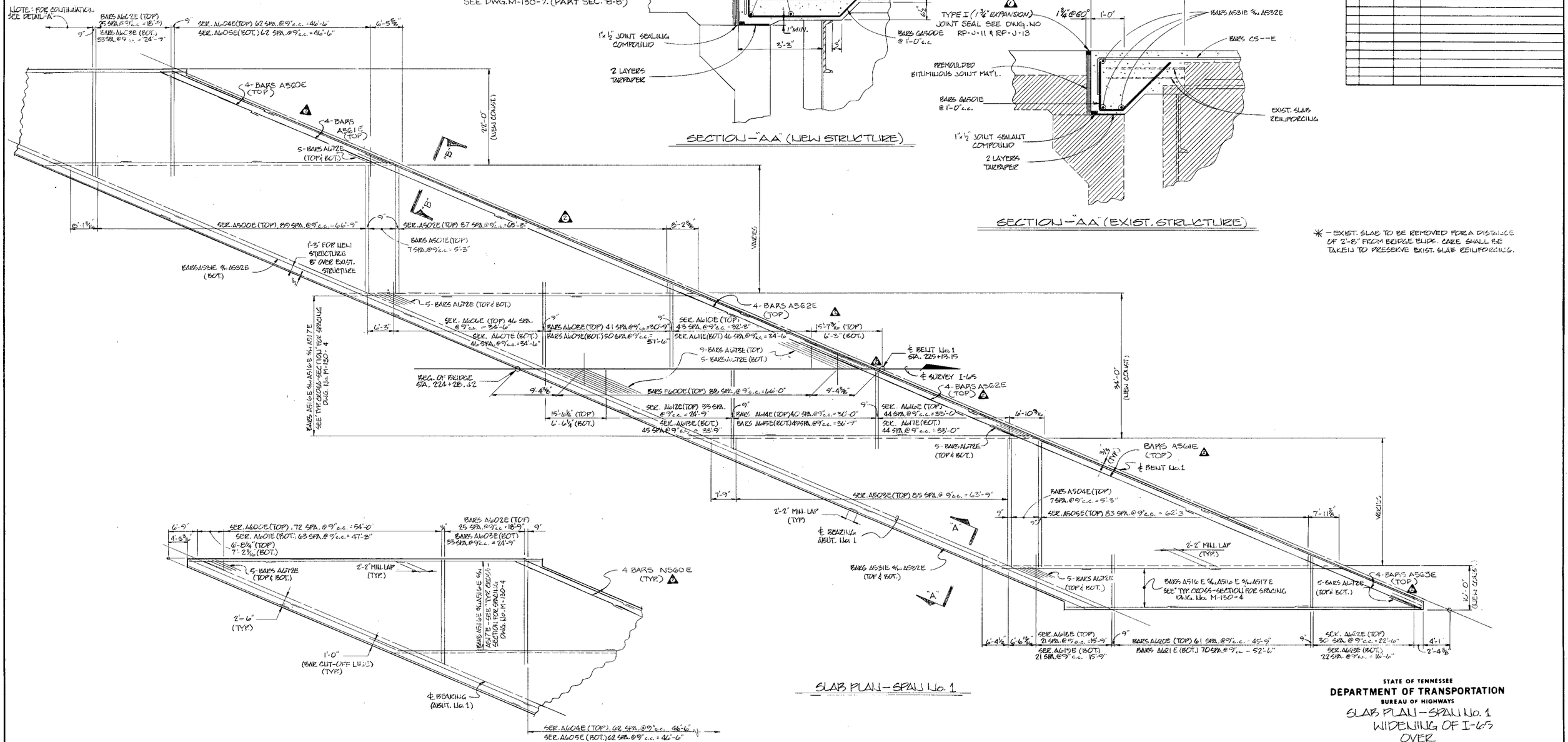


□ FOR SECTION SHOWING BAR SPACINGS, SEE DWG. M-130-7. (PART SEC. "B-B")

SECTION - "AA" (NEW STRUCTURE)

SECTION - "AA" (EXIST. STRUCTURE)

* - EXIST. SLAB TO BE REMOVED FOR A DISTANCE OF 2'-8" FROM BRIDGE ENDS. CARE SHALL BE TAKEN TO PRESERVE EXIST. SLAB REINFORCING.



SLAB PLAN - SPAN No. 1

DETAIL - "A"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SLAB PLAN - SPAN No. 1
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WAF DATE 3-82
DRAWN BY SDB DATE 3-83
SUPERVISED BY JLC & WAF DATE 3-82
CHECKED BY WAF DATE 6-82

CORRECT Clifton L. Lovell
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-130-6

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	6-16-86	JMB	ADDED BARS A56_E & N50_E @ SLAB OVER BENT NO. 1 & 3.

FOR CONTINUATION SEE "DETAIL-B"

BARS A626E (TOP) 229 SPA. @ 9"c.c. = 171'-9"
BARS A627E (BOT.) 239 SPA. @ 9"c.c. = 179'-3"

SER. A628E (TOP) 58 SPA. @ 9"c.c. = 43'-6"
SER. A629E (BOT.) 58 SPA. @ 9"c.c. = 43'-6"

6'-4⅛"

BARS A516E & A516E & A521E (SEE TYP. CROSS-SECTION FOR SPACING) DWG. No. M-130-4

22'-0" (NEW CONST.)

2'-2" MIN. LAP (TYP.)

"B"

4-BARS A524E (TOP) ▲

5-BARS A472E (TOP & BOT.)

4-BARS A561E (TOP) ▲

2'-2" MIN. LAP FOR A56_E ▲

SER. A505E (TOP) 78 SPA. @ 9"c.c. = 58'-6"

VARIES

BARS A501E (TOP) 209 SPA. @ 9"c.c. = 156'-9"

SERIES A507E (TOP) 81 SPA. @ 9"c.c. = 60'-9"

8'-0⅜"

4 BARS A501E (TOP) ▲

5-BARS A472E (TOP & BOT.)

4-BARS A562E (TOP) 44 SPA. @ 9"c.c. = 33'-0" ▲

SER. A503E (TOP) 44 SPA. @ 9"c.c. = 33'-0"
SER. A501E (BOT.) 44 SPA. @ 9"c.c. = 33'-0"

6'-3⅜"

9'-1"

9-BARS A473E (TOP)
5-BARS A472E (BOT.)

℄ BELT No. 1
STA. 225+13.15

15'-3" (TOP)
6'-5⅜" (BOT.)

SER. A536E (TOP) 40 SPA. @ 9"c.c. = 30'-0"
SER. A537E (BOT.) 43 SPA. @ 9"c.c. = 32'-3"

4-BARS A562E (TOP) ▲

BARS A532E (TOP) 239 SPA. @ 9"c.c. = 179'-3"
BARS A533E (BOT.) 247 SPA. @ 9"c.c. = 185'-3"
BARS A500E (TOP) 276 SPA. @ 9"c.c. = 207'-0"

BARS A516E & A516E & A521E (SEE TYP. CROSS-SECTION FOR SPACING) DWG. No. M-130-4

BARS A538E (TOP) 236 SPA. @ 9"c.c. = 177'-0"
BARS A539E (BOT.) 248 SPA. @ 9"c.c. = 186'-0"

34'-0" (NEW CONST.)

4-BARS A561E (TOP)

"B"

8'-3⅜"

SER. A506E (TOP) 82 SPA. @ 9"c.c. = 61'-6"

VARIES

BARS A504E (TOP) 202 SPA. @ 9"c.c. = 151'-6"

5-BARS A472E (TOP & BOT.)

4-BARS A563E (TOP) ▲

BARS A516E & A516E & A521E (SEE TYP. CROSS-SECTION FOR SPACING) DWG. No. M-130-4

10'-0" (NEW CONST.)

6'-2⅜"

SER. A642E (TOP) 21 SPA. @ 9"c.c. = 15'-9"
SER. A643E (BOT.) 21 SPA. @ 9"c.c. = 15'-9"

BARS A644E (TOP) 253 SPA. @ 9"c.c. = 189'-9"
BARS A645E (BOT.) 261 SPA. @ 9"c.c. = 195'-9"

SEE "DETAIL-A" FOR CONTINUATION

DETAIL-A

BARS A503E (TOP) 78 SPA. @ 9"c.c. = 58'-6"

7'-8¹¹⁄₁₆"

⅝"

℄ BEARING BELT "3

4-BARS A561E (TOP) ▲

4-BARS A566E (TOP) ▲

3'-11½"

5-BARS A472E (TOP & BOT.)

BARS A644E (TOP) 253 SPA. @ 9"c.c. = 189'-9"
BARS A645E (BOT.) 261 SPA. @ 9"c.c. = 195'-9"

9"

SER. A646E (TOP) 28 SPA. @ 9"c.c. = 21'-0"
SER. A647E (BOT.) 20 SPA. @ 9"c.c. = 15'-0"

6'-11½"

5"CL.

3 SPA @ 4" = 12" (TYP.)

2"

4-BARS A56_E ▲ s/w 4-A56_E (TYP.)

4-BARS N501E ▲ (TYP. BETWEEN BEAMS)

3" (TYP.)

4-BARS N502E (TYP. BETWEEN BEAMS) ▲

◆: SEE DWG. M-130-16 FOR EXPANSION JOINT DETAIL.

℄ BELT No. 1 OR 3

PART SECTION-BB

(TYP. FOR NEW CONST., SEE DWG. M-130-16 FOR MODIFICATIONS AT EXIST. STRUCTURE.)

14-9⅜" (TOP)
6'-7⅝" (BOT.)

9'-1"

℄ BELT No. 3
STA. 227+38.182

℄ SURVEY I-65

4-BARS A565E (TOP) ▲

SER. A644E (TOP) 44 SPA. @ 9"c.c. = 33'-0"
SER. A641E (BOT.) 44 SPA. @ 9"c.c. = 33'-0"

5'-4⁹⁄₁₆"

5-BARS A472E (TOP & BOT.)

SLAB PLAN - SPANS No. 2 & 3

3"
8"
9"
3"
(TYP.)

PART SECTION @ BENT 2

(TYP. FOR NEW CONST., SEE DWG. NO. M-130-14 & M-130-16 FOR MODIFICATIONS AT EXIST. STRUCTURE.)

7'-2½"

SER. A624E (TOP) 70 SPA. @ 9"c.c. = 52'-6"
SER. A625E (BOT.) 61 SPA. @ 9"c.c. = 45'-9"

9"

BARS A626 E (TOP) 229 SPA. @ 9"c.c. = 171'-9"
BARS A627 E (BOT.) 239 SPA. @ 9"c.c. = 179'-3"

4'-2¹⁵⁄₁₆"

5-BARS A6_ (TOP & BOT.)

2'-2" MIN. LAP (TYP.)

4-BARS A560E (TOP) ▲

⅜"

℄ BEARING BELT #1

4-BARS A561E (TOP) ▲

8'-6⅜"

SER. A506E (TOP) 85 SPA. @ 9"c.c. = 63'-9"

DETAIL-B

DESIGNED BY WAP DATE 3-83
DRAWN BY SDB DATE 3-83
SUPERVISED BY JLA & JMB DATE 3-83
CHECKED BY WAP DATE 6-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SLAB PLAN - SPANS No. 2 & 3
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Fornsell

APPROVED Lewis Evans

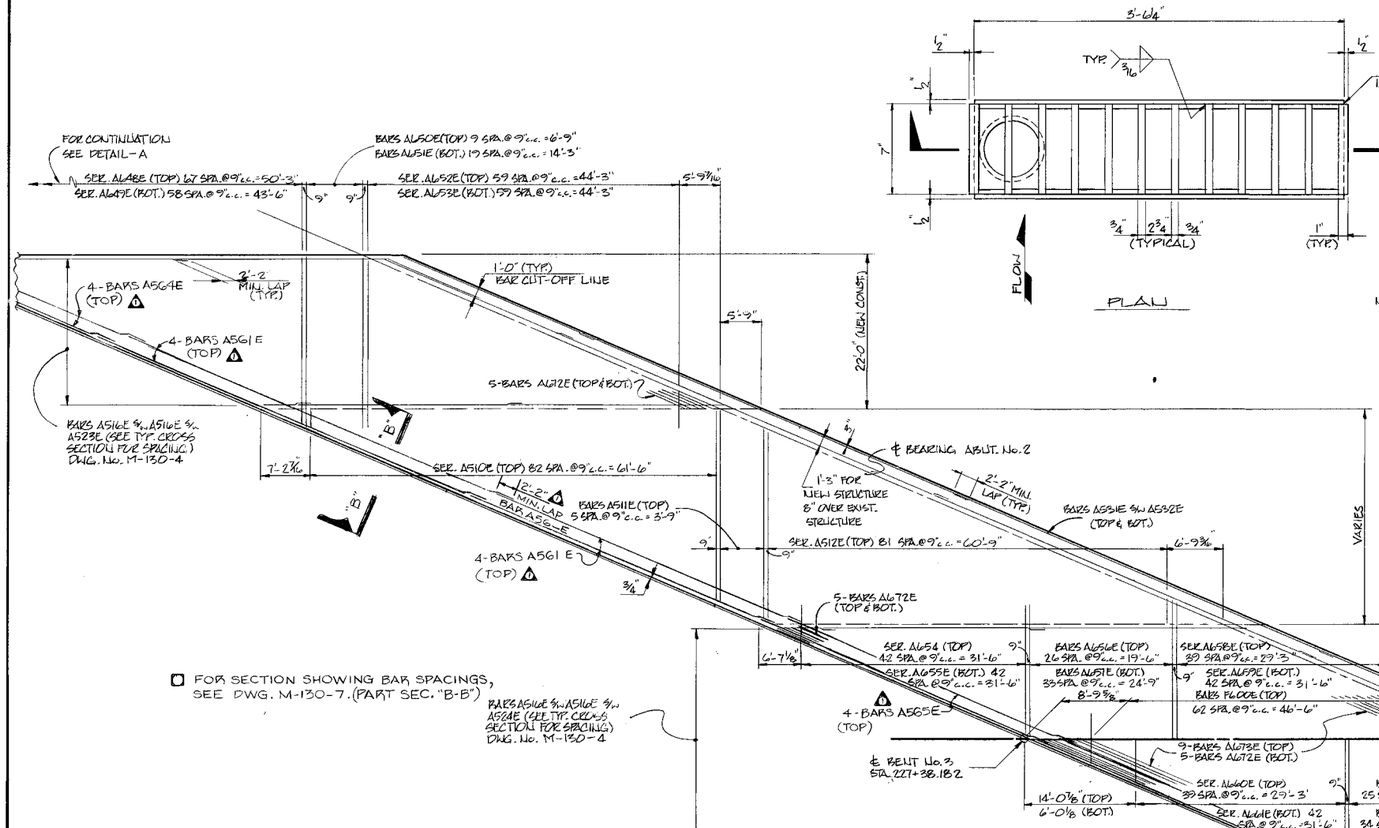
M-130-7

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO	DATE	BY	BRIEF DISCRIPTION
1	6-16-86	JMB	ADDED BARS A56E & N50E @ SLAB OVER BENT NO. 3.

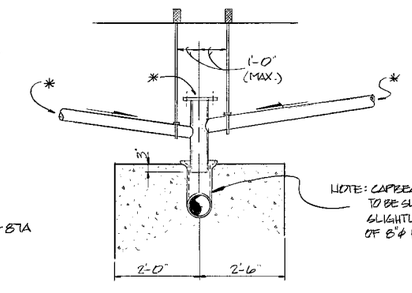


SLAB PLAN – SPAN No. 4

DRAINAGE SYSTEM DETAILS

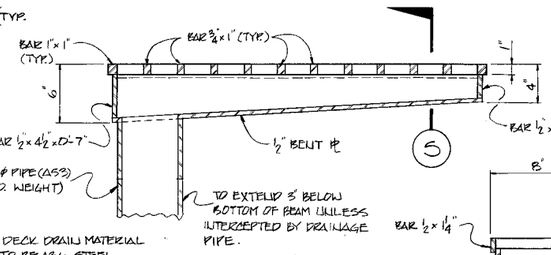
NOTE: A MINIMUM CLEARANCE OF 1" SHALL BE MAINTAINED BETWEEN THE DRAINAGE SYSTEM AND CROSS FRAME MEMBERS.

*—FOR ADDITIONAL DETAILS SUCH AS PIPE DIMENSIONS, MATERIALS, COLLECTIONS, ETC. SEE DWG. M-130-57A



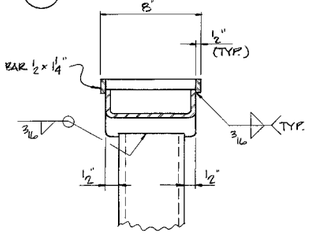
SECTION "MM"

PLAN



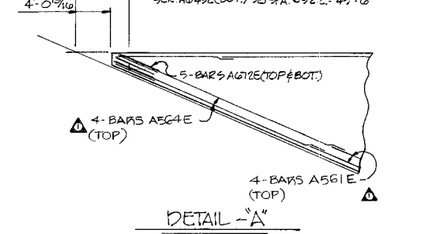
NOTE: DECK DRAIN MATERIAL TO BE A36 STEEL.

SECTION "R"



SECTION "S"

DECK DRAIN DETAILS
(10 REQ'D)



DETAIL – "A"

NOTE: SEE DWG. NO. M-130-6 FOR SECTION – "AA"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SLAB PLAN – SPAN No. 4
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION – 226+76.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Fowall

APPROVED Lewis Evans

M-130-8

DESIGNED BY WAP DATE 3-83
DRAWN BY SDB DATE 3-83
SUPERVISED BY JLC & JMB DATE 3-83
CHECKED BY WAP DATE 6-83

102746

Const. No. 19010-3124-44 (1)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO	DATE	BY	BRIEF DESCRIPTION
1	1-1-86	JMB	REVISED BEAM LENGTHS: BEAMS A1, A2, C3, C4, C5 AND REVISED DIM. "B" AT BENT # 2
2	7-18-86	JMB	ADDED DEAD LOAD CAMBER.
3	8-7-86	JMB	COMPLETED DEAD LOAD CAMBER.

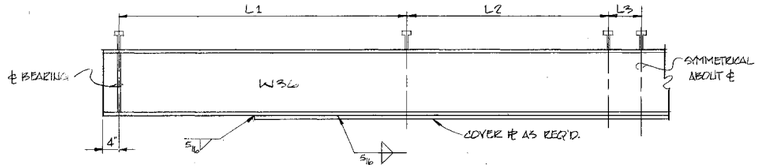
STRINGER SCHEDULE - (ROLLED SHAPES)

MARK	STRINGERS BEAM SIZE	STRINGERS BOT. COVER PL.	CTR. TO CTR. BEARINGS *	CAMBER ¼ PT.	CAMBER ½ PT.	STUD SPACING * L1	STUD SPACING * L2	STUD SPACING * L3
A2	W36x160	11"x1⅜"x54'-6"	80'-2⅜" 1	2"	2⅜"	19@1'-0"=19'-0"	12@1'-8"=20'-0"	1@1'-1⅞" 1
A3	W36x160	11"x1⅜"x55'-0"	77'-6⅛"	1⅜"	2½"	19@1'-0"=19'-0"	11@1'-8"=18'-4"	1@1'-5⅛"
A4	W36x160	11"x1⅜"x55'-0"	77'-6⅛"	1⅜"	2½"	19@1'-0"=19'-0"	11@1'-8"=18'-4"	1@1'-5⅛"
A5	W36x160	11"x1⅜"x55'-0"	77'-6⅛"	1⅜"	2⅝"	19@1'-0"=19'-0"	11@1'-8"=18'-4"	1@1'-5⅛"
C2	W36x135	11"x⅞"x44'-0"	63'-2"	1⅛"	1⅝"	17@1'-0"=17'-0"	8@1'-8"=13'-4"	2@1'-1½"
C3	W36x135	11"x⅞"x43'-0" 1	63'-0⅜" 1	1"	1⅝"	17@1'-0"=17'-0"	7@1'-8"=11'-8"	2@1'-5⅛" 1
C4	W36x135	11"x⅞"x43'-0"	63'-0⅜" 1	1"	1⅝"	17@1'-0"=17'-0"	7@1'-8"=11'-8"	2@1'-5⅛" 1
C5	W36x135	11"x⅞"x43'-0"	63'-0⅜" 1	1"	1⅝"	17@1'-0"=17'-0"	7@1'-8"=11'-8"	2@1'-5⅛" 1

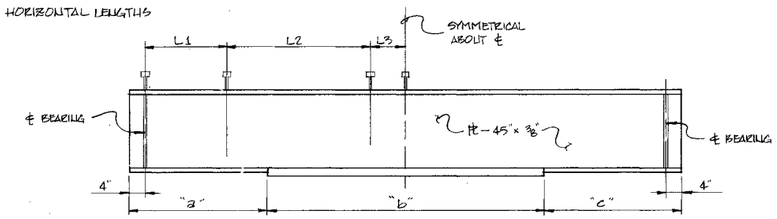
GIRDER SCHEDULE (SIMPLE SPANS)

MARK	CTR. TO CTR. BEARINGS *	CAMBER ½ PT.	CAMBER ¼ PT.	STUD SPACING * L1	STUD SPACING * L2	STUD SPACING * L3
A1	80'-2⅜" 1	1⅜"	2⅛"	15@1'-0"=15'-0"	15@1'-8"=25'-0"	
A6	75'-9⅜"	1"	1⅜"	15@1'-0"=15'-0"	13@1'-8"=21'-8"	1@1'-2⅜"
C1	65'-2"	¾"	1⅛"	13@1'-0"=13'-0"	11@1'-8"=18'-4"	1@1'-3"
C6	61'-3⅛"	½"	¾"	13@1'-0"=13'-0"	10@1'-8"=16'-8"	1@0'-11½"

✱ - DENOTES: HORIZONTAL LENGTHS



STRINGER ELEVATION



(FOR STRINGERS A2,A3,A4,A5,C2,C3,C4, & C5)

A1

	"a"	"b"	"c"
TOP PL	12"x⅜"x80'-10⅜"		
WEB PL	45"x⅜"x80'-10⅜"		
BOT. PL	16"x⅞"x16'-4"	16"x1½"x48'-2⅜"	16"x⅞"x16'-4"
STIFFENER SPA.	1@1'-10", 21 EQ. SPA. = 76'-6⅜", 1@1'-10"		

A6

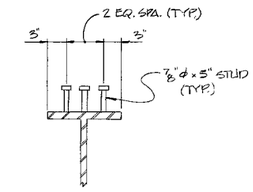
	"a"	"b"	"c"
TOP PL	12"x¾"x76'-5⅜"		
WEB PL	45"x⅜"x76'-5⅜"		
BOT. PL	16"x⅞"x14'-2½"	16"x1½"x48'-0⅜"	16"x⅞"x14'-2½"
STIFFENER SPA.	1@1'-10", 20 EQ. SPA. = 72'-1⅜", 1@1'-10"		

C1

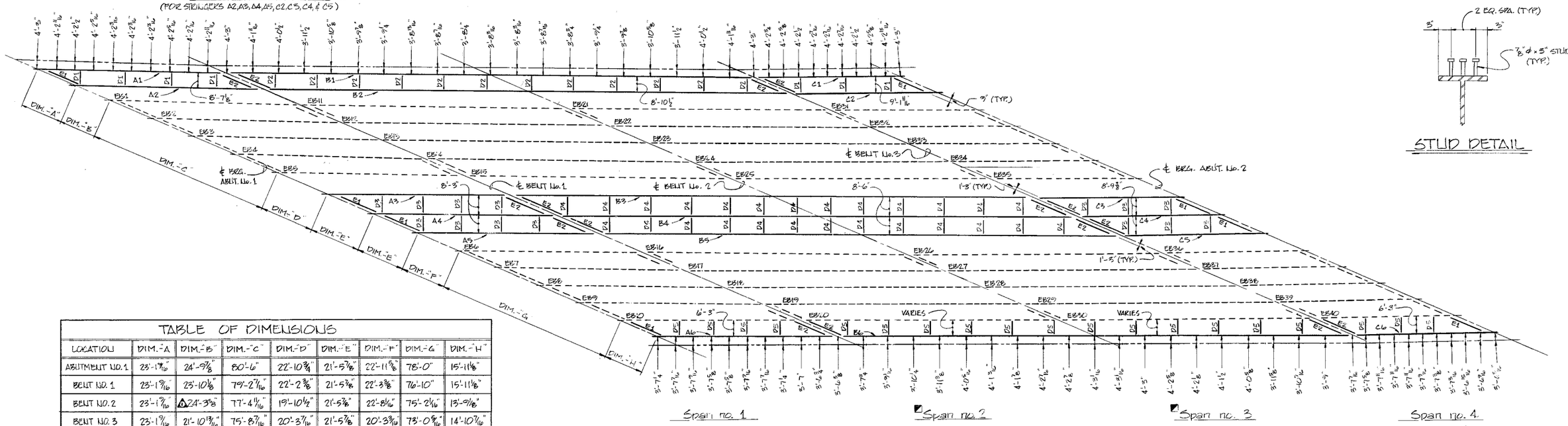
	"a"	"b"	"c"
TOP PL	12"x¾"x65'-10"		
WEB PL	45"x⅜"x65'-10"		
BOT. PL	16"x⅞"x13'-4"	16"x1⅛"x39'-2"	16"x⅞"x13'-4"
STIFFENER SPA.	1@1'-10", 17 EQ. SPA. = 61'-6", 1@1'-10"		

C6

	"a"	"b"	"c"
TOP PL	12"x⅜"x61'-11⅛"		
WEB PL	45"x⅜"x61'-11⅛"		
BOT. PL	16"x⅞"x11'-4½"	16"x1⅛"x39'-2⅛"	16"x¾"x11'-4½"
STIFFENER SPA.	1@1'-10", 16 EQ. SPA. = 57'-7⅛", 1@1'-10"		



STUD DETAIL



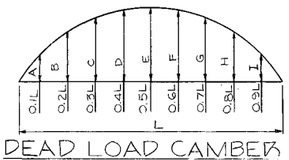
FRAMING PLAN

TABLE OF DIMENSIONS

LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"	DIM. "H"
ABUTMENT NO. 1	23'-1⅞"	24'-9⅞"	80'-6"	22'-10¾"	21'-5⅞"	22'-11⅝"	78'-0"	15'-11⅝"
BENT NO. 1	23'-1⅞"	23'-10⅛"	79'-2⅞"	22'-2⅜"	21'-5⅞"	22'-3⅜"	76'-10"	15'-11⅝"
BENT NO. 2	23'-1⅞"	24'-3⅝" 1	77'-4¹¹⁄₁₆"	19'-10½"	21'-5⅞"	22'-8⅛"	75'-2⅛"	13'-9⅛"
BENT NO. 3	23'-1⅞"	21'-10¹³⁄₁₆"	75'-8⅞"	20'-3⅞"	21'-5⅞"	20'-3⅝"	73'-0⅝"	14'-10⅞"
ABUTMENT NO. 2	23'-1⅞"	21'-4"	74'-7⅛"	19'-6⅜"	21'-5⅞"	19'-6½"	71'-9⅝"	14'-10⅞"

STRINGER SKEW ANGLES

MARK	ANGLE	MARK	ANGLE	MARK	ANGLE
A1	21°52'53.38"	B1	22°33'42.15"	C1	23°16'28.75"
A2	21°52'53.38"	B2	22°33'42.15"	C2	23°16'28.75"
A3	22°54'14.99"	B3	23°17'53.97"	C3	24°07'9.50"
A4	22°54'14.99"	B4	23°17'53.97"	C4	24°07'9.50"
A5	22°34'14.99"	B5	23°17'53.97"	C5	24°07'9.50"
A6	23°06'18.20"	B6	24°00'41.40"	C6	24°51'27.70"



DEAD LOAD CAMBER 3

NOTE: THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS APPLIED AFTER SLAB IS IN PLACE AND SHALL BE CORRECTED FOR EFFECTS DUE TO VERTICAL CURVE.

BEAM	DIMENSION (INCHES) A	B	C	D	E	F	G	H	I	
A1,	5/8	1 1/4	1 11/16	1 15/16	2 1/16	1 15/16	1 11/16	1 1/4	5/8	4
A3, A4, A5	1	1 5/16	1 7/8	2 5/16	2 1/4	2 5/16	1 7/8	1 5/16	1	
A6	1/2	1 5/16	1 1/4	1 1/2	1 9/16	1 1/2	1 1/4	1 5/16	1/2	4
C1,	5/16	5/8	1 3/16	1	1	1	1 3/16	5/8	5/16	4
C3, C4, C5	9/16	1 3/16	1 1/8	1 1/4	1 5/8	1 1/4	1 1/8	1 3/16	9/16	
C6	1/4	7/16	3/16	11/16	11/16	11/16	3/16	7/16	1/4	4
A2	7/8	1 11/16	2 5/16	2 11/16	2 7/8	2 11/16	2 5/16	1 11/16	7/8	4
C2	1/2	15/16	1 5/16	1 9/16	1 5/8	1 7/16	1 9/16	1 5/16	1/2	4

■ - NOTE: BEARING DEVICES AT EXISTING BEAMS EB11 THRU EB30 ARE TO BE REMOVED, CLEANED, AND REMOUNTED AT OPPOSITE ENDS OF EXISTING BEAMS. THE "ED" TYPE DEVICES TO BE USED AT BENTS No. 1 & 3. THE "FD" TYPE DEVICES TO BE USED AT BENT No. 2. (SEE DWG. M-130-15)

NOTES:

1. SEE DWGS. M-130-4 & M-130-11 FOR ADDITIONAL NOTES.
2. SEE DWG. M-130-12 FOR DETAILS OF COMPOSITE GIRDERS.
3. SEE DWGS. M-130-10 & M-130-11 FOR DETAILS OF DIAPHRAGMS AND STIFFENERS.
4. SEE DWGS. M-130-14 THRU M-130-16 FOR DETAILS OF MODIFICATIONS TO EXIST. GIRDERS.
5. LOCATION OF INTERMEDIATE STIFFENERS MAY BE VARIED TO MATCH DIAPHRAGMS, OR STIFFENERS MAY BE ADDED TO CONNECT DIAPHRAGMS TO GIRDERS, WHICHEVER IS PREFERABLE. STIFFENERS THUS ADDED ARE TO BE USED IN PAIRS EXCEPT AT FASCIA GIRDERS. DIAPHRAGM SPACING SHALL NOT EXCEED 20'-0". STIFFENER SPACING SHALL NOT EXCEED 3'-9".
6. CONTRACTOR TO VERIFY EXISTING DIMENSIONS PRIOR TO FABRICATING STEEL MEMBERS.

DESIGNED BY WAP DATE 3-83
DRAWN BY SGB DATE 4-83
SUPERVISED BY WLC & JMB DATE 4-83
CHECKED BY DATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

FRAMING PLAN
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 220+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L. Fowler II
ENGINEER OF STRUCTURES
APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

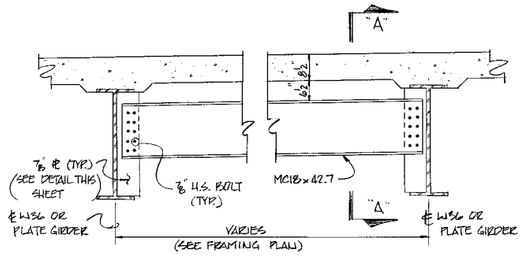
M-130-9

CONST. NO. 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

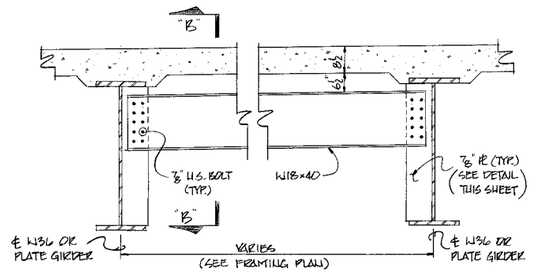
REVISIONS

NO	DATE	BY	BRIEF DISCRIPTION



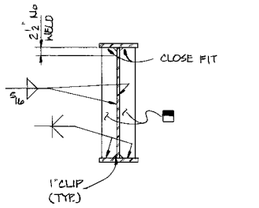
SUPPORT DIAPHRAGM-TYPE-E1

(TYP. AT ABUTMENTS No. 1 & 2)



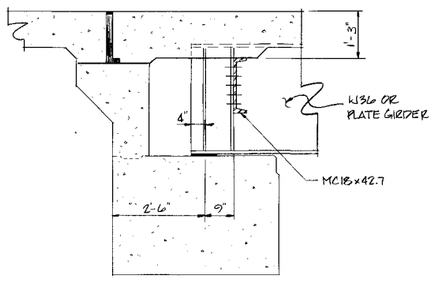
SUPPORT DIAPHRAGM-TYPE-E2

(TYP. AT BENTS No. 1 & 3)

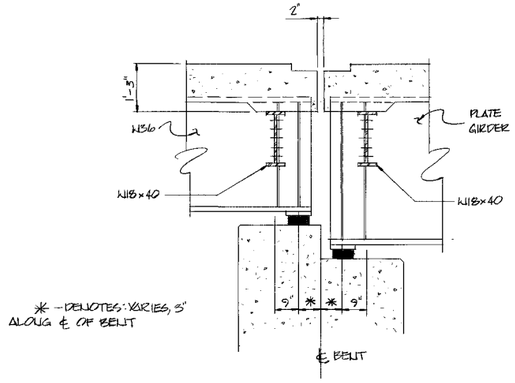


BEARING STIFFENER DETAIL

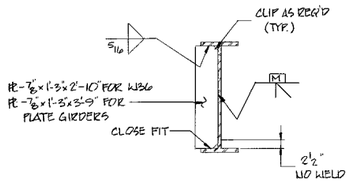
▭ DELIOTES;
FOR ROLLED SHAPES USE ø's 1½"x5½"x 2'-10"
FOR ø GIRDERS (SPANS No. 1 & 4) USE ø's 9/16"x5⅝"x 3'-9"
FOR ø GIRDERS (SPANS No. 2 & 3);
@ END SUPPORTS USE ø's 1⅜/16"x 8⅜"x 3'-9"
@ INTERIOR SUPPORTS USE ø's 1"x 10⅜"x 3'-9"



SECTION-AA

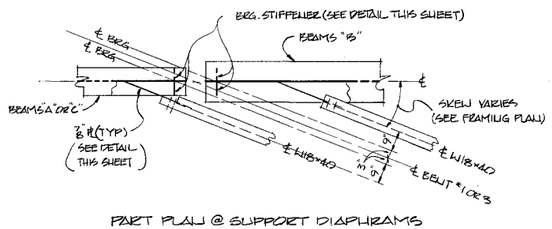


SECTION-"BB"



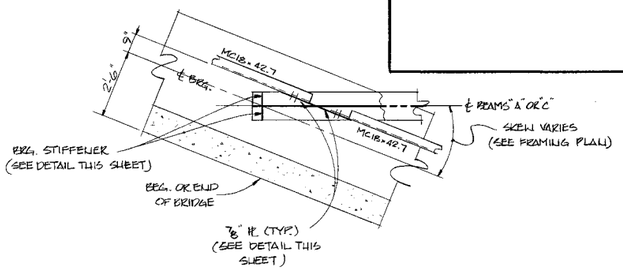
STIFFENER DETAIL AT SUPPORT DIAPHRAGMS

(BOLT HOLES OMITTED FOR CLARITY)



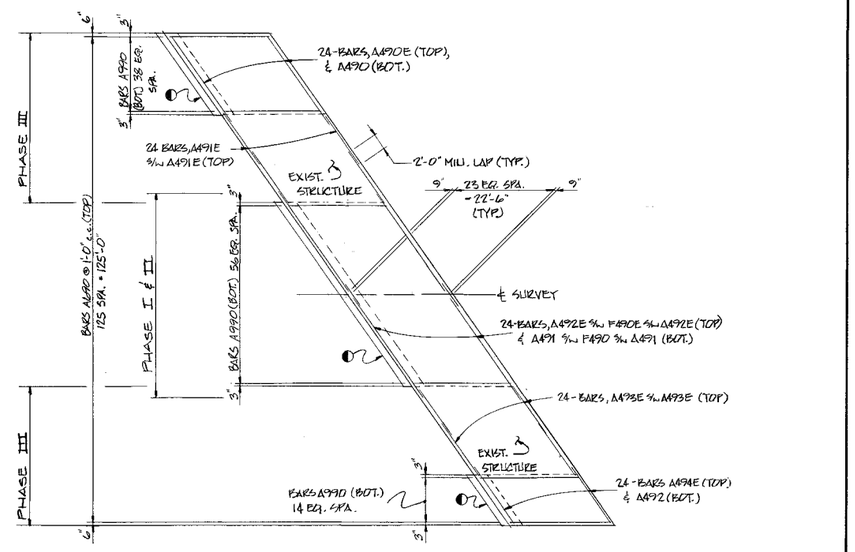
PART PLAN @ SUPPORT DIAPHRAGMS TYPE-E2

(SEE FRAMING PLAN FOR LOCATIONS)



PART PLAN @ SUPPORT DIAPHRAGMS TYPE-E1

(SEE FRAMING PLAN)



◐-DELIOTES: FOOTING REQ'D SEE DWG. No. K-86-144.

PLAN

PAVEMENT AT BRIDGE ENDS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPPORT DIAPHRAGM DETAILS WIDENING OF I-65 OVER NORTH 1ST STREET STATION- 226+26.91 DAVIDSON COUNTY 1985

CORRECT Clellon L Loveall

APPROVED Lewis Evans

M-130-10

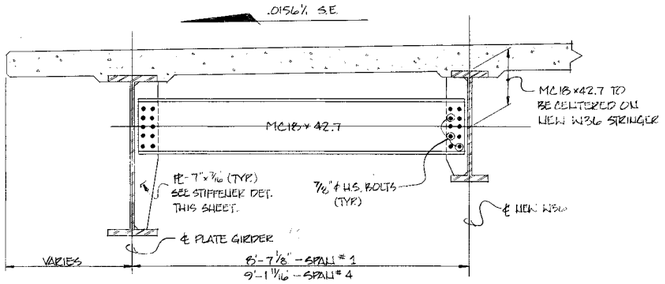
DESIGNED BY	WAP	DATE 5-83
DRAWN BY	SDTS	DATE 6-83
SUPERVISED BY	JLC & JMR	DATE 6-83
CHECKED BY	WAP	DATE 6-83

CONST. NO 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

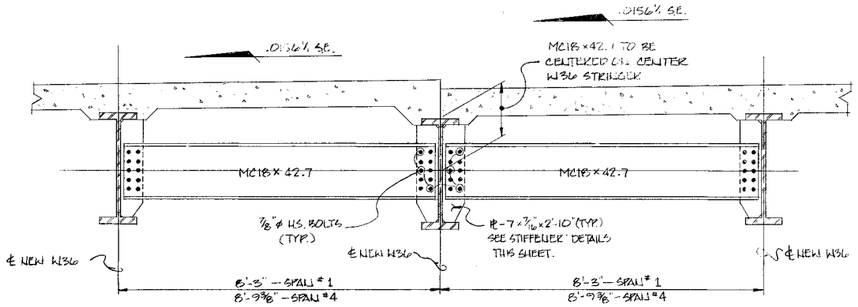
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



INTERMEDIATE DIAPHRAGM - TYPE - D1

(EAST SIDE - SPANS No. 1 & 4)



INTERMEDIATE DIAPHRAGM - TYPE - D3

(MEDIAN AREA - SPANS No. 1 & 4)

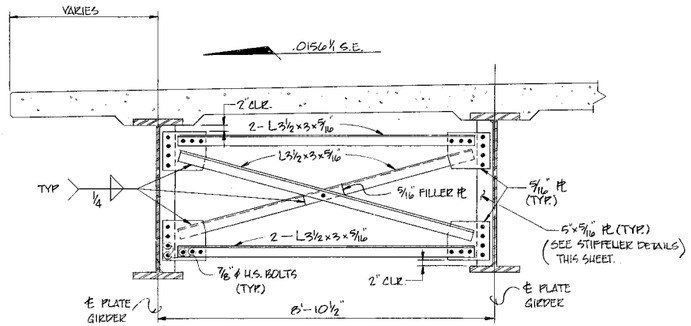
NOTES:

STRUCTURAL STEEL: SHALL CONFORM TO AASHTO M 183 (ASTM A36) UNLESS NOTED OTHERWISE.

WELDING: AWS D1.1-80 STRUCTURAL WELDING CODE, AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, THIRD EDITION, 1981, AND SPECIAL PROVISION No. 602.

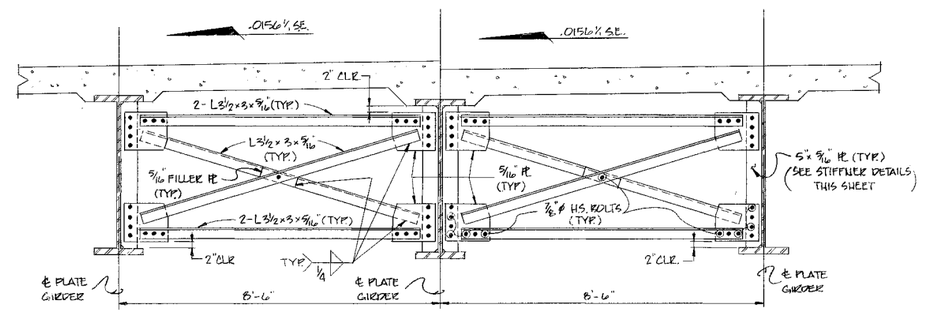
FIELD CONNECTIONS: SHALL BE 7/8" ϕ HIGH TENSILE STRENGTH BOLTS ASTM-A325 UNLESS NOTED OTHERWISE SEE AASHTO SPECIFICATIONS ART. 2.10.20. ALL HIGH STRENGTH BOLTED CONNECTIONS ARE FRICTION TYPE.

SHOP ASSEMBLY: PROGRESSIVE SHOP ASSEMBLY WILL BE ALLOWED. SEE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, ART. 2.10.14 (b).



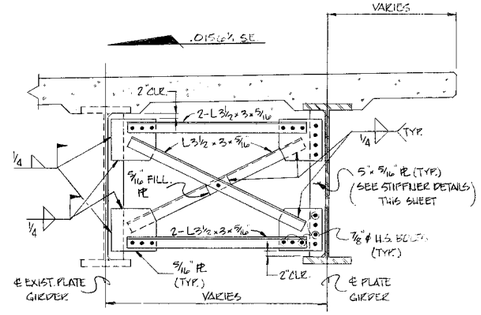
INTERMEDIATE DIAPHRAGM - TYPE - D2

(EAST SIDE - SPANS No. 2 & 3)



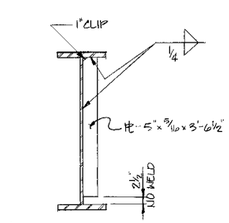
INTERMEDIATE DIAPHRAGM - TYPE - D4

(MEDIAN AREA - SPANS No. 2 & 3)

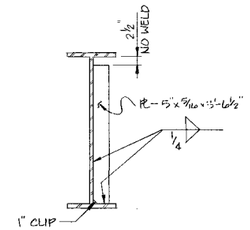


INTERMEDIATE DIAPHRAGM - TYPE D5

(WEST SIDE - SPANS No. 1, 2, 3, & 4)



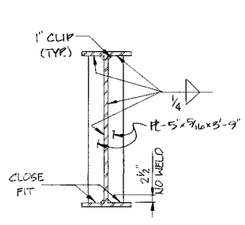
@ POSITIVE MOMENT REGIONS



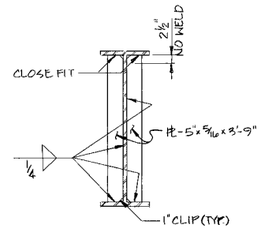
@ NEGATIVE MOMENT REGIONS

INTERMEDIATE STIFFENER DETAILS

NOTES: ① INTERMEDIATE STIFFENERS TO BE USED IN PAIRS ON INTERIOR STRINGERS.
② ON FASCIA STRINGERS, INTERMEDIATE STIFFENERS TO BE USED ON INSIDE FACE ONLY.
③ FABRICATOR TO COMPENSATE FOR BENDING DURING FABRICATION CAUSED BY STIFFENERS ON ONE SIDE.



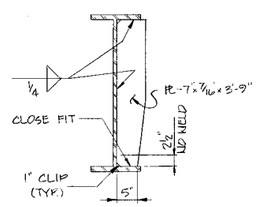
@ POSITIVE MOMENT REGIONS



@ NEGATIVE MOMENT REGIONS

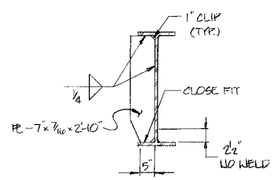
STIFFENER DETAILS @ INTERMEDIATE DIAPHRAGMS

NOTES: ① TYPICAL FOR ALL PLATE GIRDERS EXCEPT, EAST FASCIA GIRDERS SPANS No. 1 & 4.
② BOLT HOLES OMITTED FOR CLARITY
③ STIFFENERS AT EXISTING FASCIA GIRDER (WEST SIDE) TO BE FIELD WELDED.
④ STIFFENERS TO BE USED ON INSIDE FACE ONLY AT FASCIA GIRDERS



STIFFENER DETAILS @ INTERMEDIATE DIAPHRAGMS

(TYPICAL @ EAST FASCIA GIRDER SPANS No. 1 & 4 ONLY. BOLT HOLES OMITTED FOR CLARITY)



STIFFENER DETAILS @ INTERMEDIATE DIAPHRAGMS

(TYPICAL FOR INTERIOR W-SECTIONS SPANS No. 1 & 4. BOLT HOLES OMITTED FOR CLARITY.)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

INTERMEDIATE DIAPHRAGM DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.71
DAVIDSON COUNTY
1985

CORRECT _____ Clellon L Fowell
ENGINEER OF STRUCTURES

APPROVED _____ Emma Guerry
DIRECTOR OF HIGHWAYS

DESIGNED BY	KIAP	DATE 3-83
DRAWN BY	SDB	DATE 3-83
SUPERVISED BY	JLC & JMR	DATE 3-83
CHECKED BY	KIAP	DATE 6-83

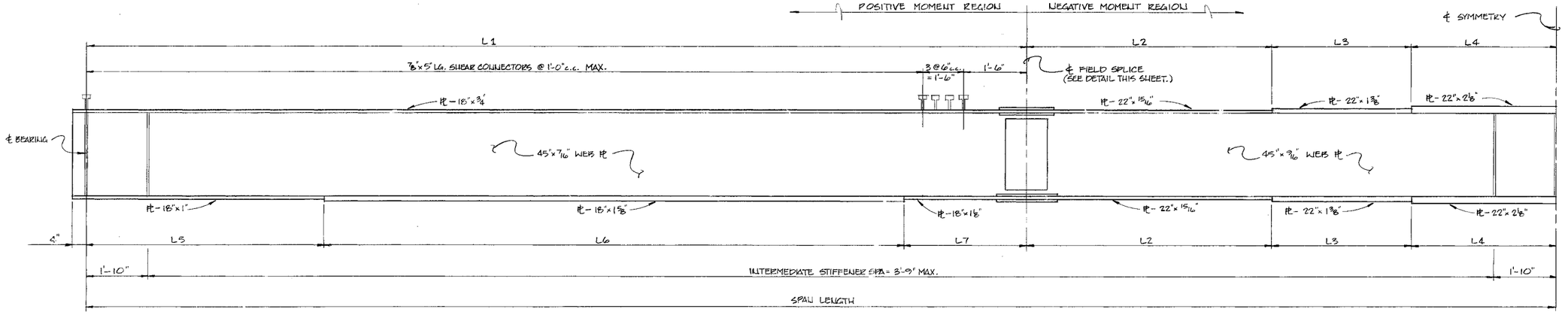
M-130-11

CONST. NO. 19010-3124-44 (1)
CONST. NO. FHWA(D)-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

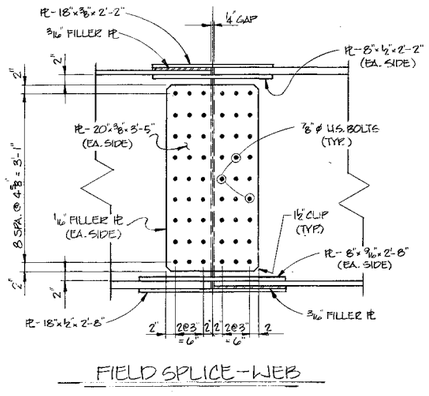
NO	DATE	BY	BRIEF DESCRIPTION
1	1-1-86	JMB	REVISED BEAM LENGTH OF BEAMS B1 & B2 AND ADJUSTED DIM. "L1" & "L5"



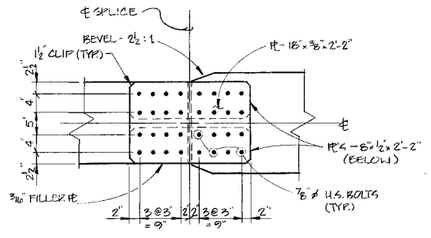
GIRDER ELEVATION
(FOR GIRDERS B1 THRU B6)

GIRDER SCHEDULE – (CONTINUOUS SPANS)

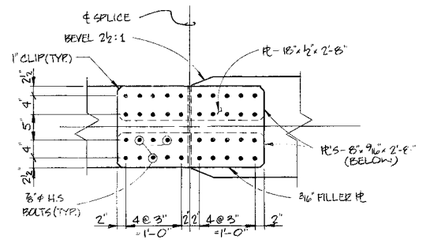
MARK	LENGTH	L1	L2	L3	L4	L5	L6	L7
B1 ⚠1	115'-2 15/16"	80'-7 15/16" ⚠1	17'-3"	8'-1"	9'-3"	20'-0 9/16" ⚠1	49'-1"	11'-6"
B2 ⚠1	115'-2 15/16"	80'-7 15/16" ⚠1	17'-3"	8'-1"	9'-3"	20'-0 9/16" ⚠1	49'-1"	11'-6"
B3	111'-10½"	78'-4"	16'-8½"	7'-10"	9'-0"	19'-7"	47'-7"	11'-2"
B4	111'-10½"	78'-4"	16'-8½"	7'-10"	9'-0"	19'-7"	47'-7"	11'-2"
B5	111'-10½"	78'-4"	16'-8½"	7'-10"	9'-0"	19'-7"	47'-7"	11'-2"
B6	108'-9"	76'-1"	16'-4"	7'-7"	8'-9"	19'-1"	46'-2"	10'-10"



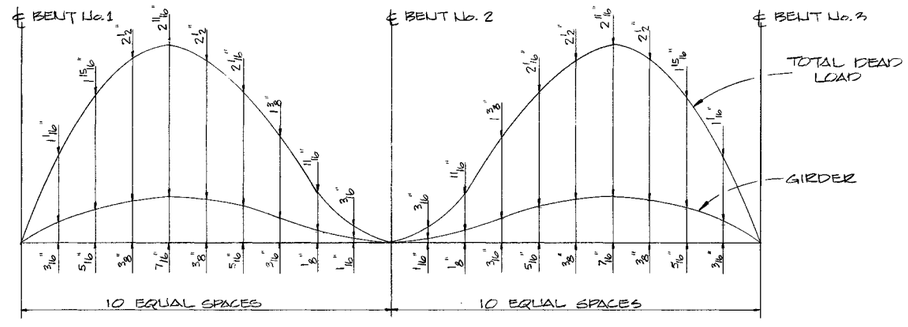
FIELD SPLICE – WEB



FIELD SPLICE – TOP FLANGE



FIELD SPLICE – BOT. FLANGE



DEAD LOAD CORRECTION CURVE

NOTE: GIRDERS TO BE CAMBERED FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GIRDER DETAILS WIDENING OF I-65 OVER NORTH 1ST STREET STATION-226+26.91 DAVIDSON COUNTY 1985

DESIGNED BY WAP DATE 4-83
DRAWN BY EDB DATE 4-83
SUPERVISED BY W.A.P., JMB DATE 4-83
CHECKED BY WAP DATE

CORRECT Clellon L. Evans
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

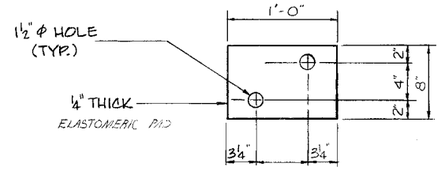
M-130-12.

CONST. NO - 19010-3124-44 (1)
CONST. NO- 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

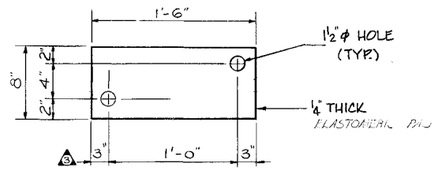
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-16-85	JLV	Add number req'd
2	2-19-86	JLV	Revised Elastomeric Pads
3	3-3-86	HNB	Revised Dimensions for 1½"ϕ Holes.



⚠ BEARING PAD — BP1

(FOR BEAMS: A2, A3, A4, & A5 @ ABUT. No. 1
AND BEAMS: C2, C3, C4, & C5 @ ABUT. No. 2)

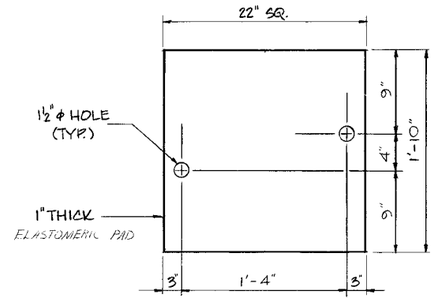
(8 REQ'D) ⚠



⚠ BEARING PAD — BP2

(FOR BEAMS: A1 & A6 @ ABUT. No. 1
AND BEAMS: C1 & C6 @ ABUT. No. 2)

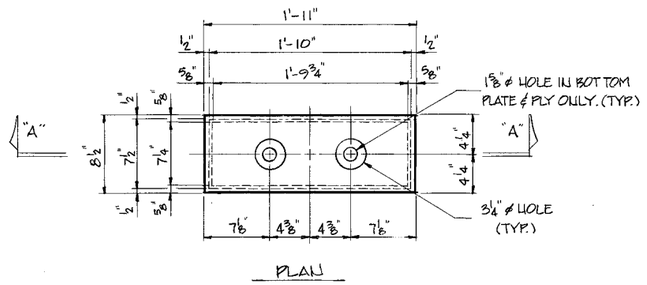
(4 REQ'D) ⚠



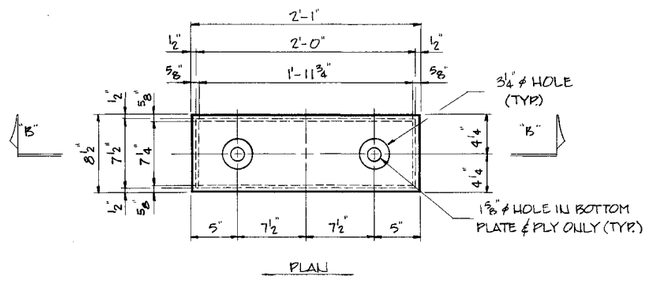
⚠ BEARING PAD — BP3

(FOR BEAMS: B1 THRU B6 @ BENT No. 2)

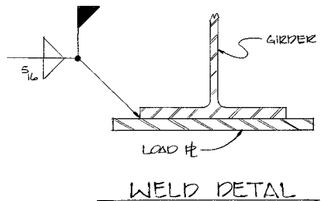
(6 REQ'D) ⚠



PLAN

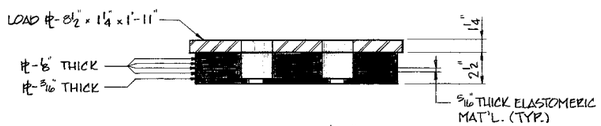


PLAN



WELD DETAIL

(TYP. BEARING PADS - BP4 & BP5)



SECTION - "AA"

BEARING PAD - BP4

(FOR BEAMS: A1 THRU A6 @ BENT No. 1
AND BEAMS: C1 THRU C6 @ BENT No. 3)

(12 REQ'D) ⚠

SECTION - "BB"

BEARING PAD - BP5

(FOR BEAMS: B1 THRU B6 @ BENTS No. 1 & 3)

(12 REQ'D) ⚠

NOTE: CONTRACTOR MAY SUBMIT ALTERNATE DEVICES FOR BEARING PAD TYPES BP4 AND BP5;

TYPE	D.L. REACTION	LL REACTION	TOTAL MOVEMENT	LIVE LOAD ROTATION
BP4	57.13	61.14	⅞"	.003 RAD
BP5	61.71	65.18	1⅛"	.003 RAD

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BEARING PAD DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WAP DATE 4-83
DRAWN BY SDB DATE 4-83
SUPERVISED BY WAP & JMB DATE 4-83
CHECKED BY WAP DATE 4-83

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

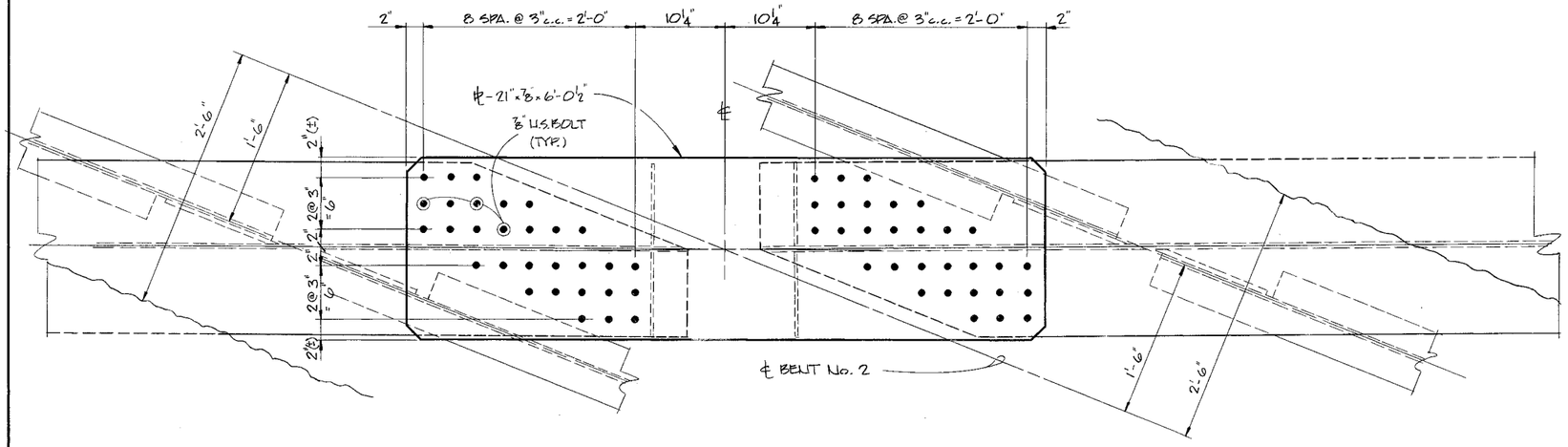
M-130-13

CONST. NO. 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

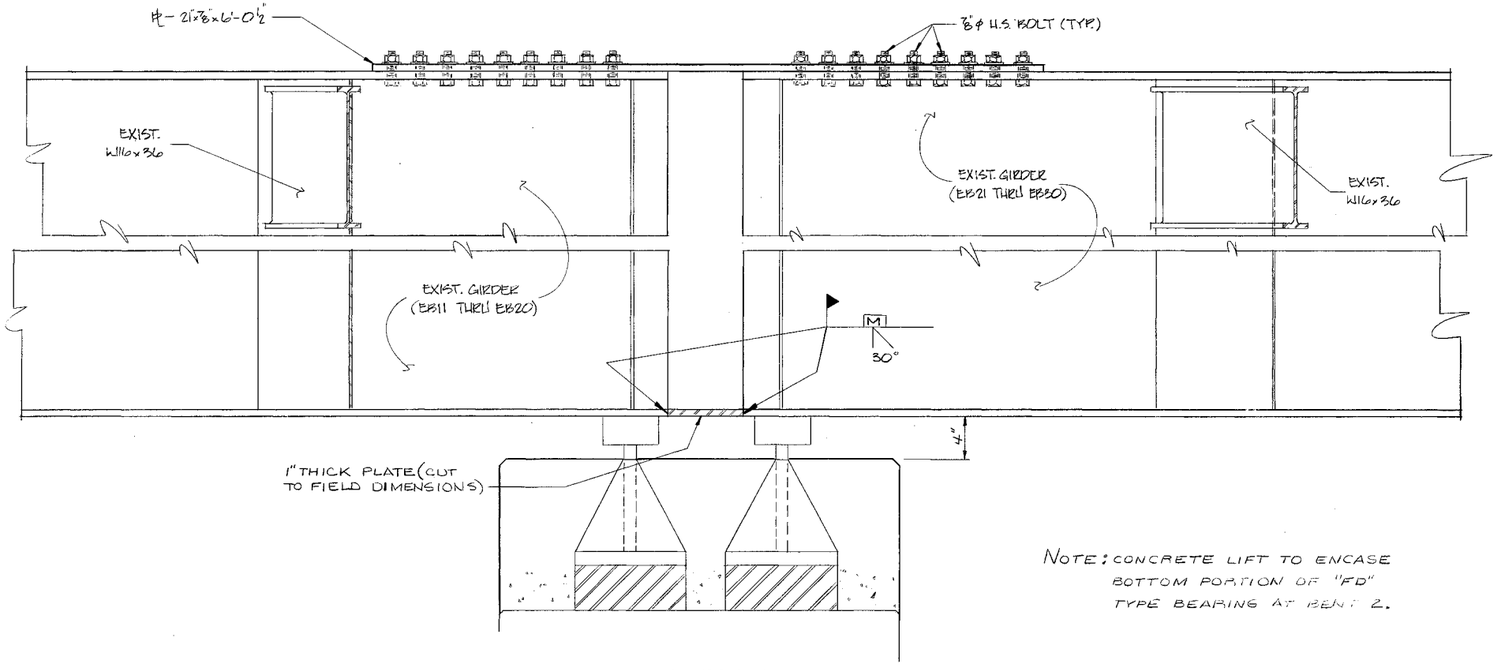
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)88	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



PLAN



ELEVATION
(BENT NO. 2)

NOTE: CONCRETE LIFT TO ENCASE BOTTOM PORTION OF "FD" TYPE BEARING AT BENT 2.

NOTES

CONTRACTOR TO VERIFY BOLT HOLE LOCATIONS AND PROXIMITY TO EXISTING BEARING DEVICES AND DIAPHRAGMS PRIOR TO FABRICATING TOP SPLICE PLATES.

30-BOLTS REQUIRED ON EACH SIDE OF SPLICE, BOLT HOLES MAY BE SHIFTED SLIGHTLY TO CLEAR EXISTING SUPPORT MATERIAL, SUBJECT TO APPROVAL BY THE ENGINEER.

EXISTING SHEAR CONNECTORS TO BE REMOVED AS REQUIRED TO CLEAR SPLICE PLATES.

CONTRACTOR SHALL FURNISH SHIM PLATES AS REQUIRED FOR TOP SPLICE PLATES.

CONTRACTOR TO VERIFY ALIGNMENT (HORIZ. AND VERT.) OF BOTTOM FLANGES PRIOR TO FABRICATING BOTTOM SPLICE PLATE.

DESIGNED BY WAP DATE 4-85
DRAWN BY SCPS DATE 4-85
SUPERVISED BY W.A.P. DATE 4-85
CHECKED BY WAP DATE 4-85

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

LOCKING DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 2216+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Foxwell
ENGINEER OF STRUCTURES
APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

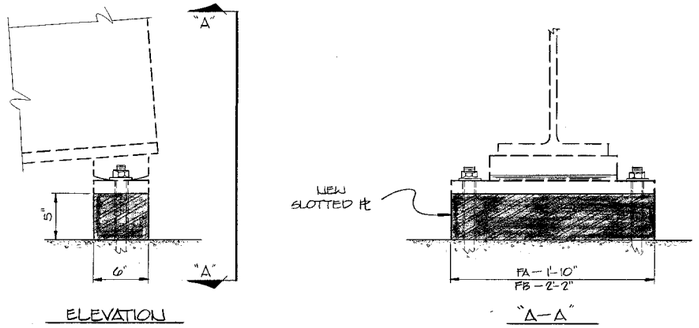
M-130-14

CONST. NO. 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

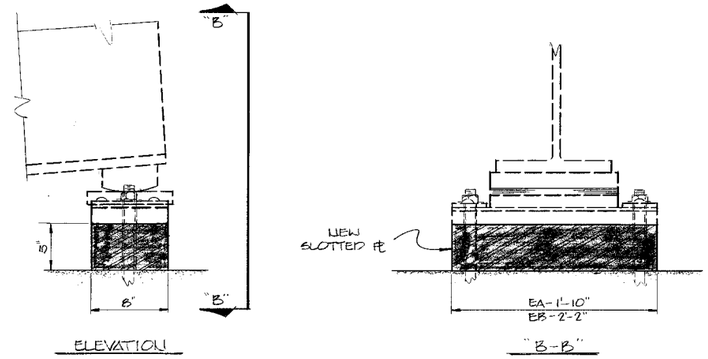
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

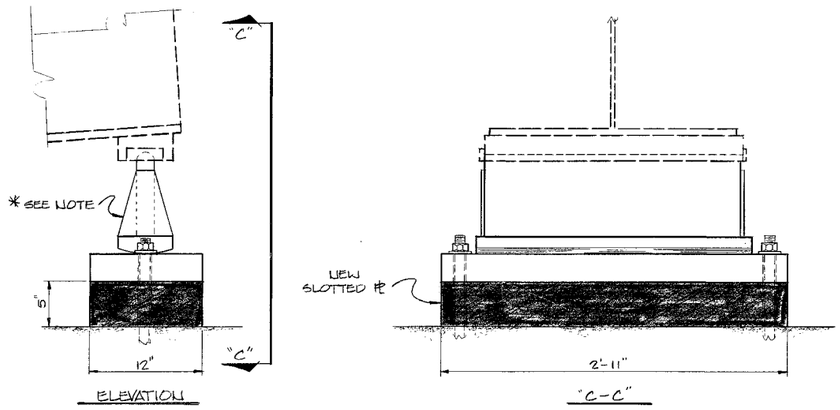
NO.	DATE	BY	BRIEF DESCRIPTION



EXISTING BEARING TYPE - FA & FB



EXISTING BEARING TYPE - EA & EB



EXISTING BEARING TYPE - ED

EXISTING BEARING LOCATIONS					
MARK	EXISTING BEARING TYPE				
	ABUT. #1	BENT #1	BENT #2	BENT #3	ABUT. #2
EB1 THRU EB6	FB	EB			
EB7, EB8, EB9	FA	EA			
EB10	FB *	EB *			
EB11 THRU EB20		FD *	ED *		
EB21 THRU EB30			ED	FD	
EB31, EB35, EB36 & EB40				EB	FB
EB32, EB33, EB34 EB37, EB38, EB39				EA	FA

JACKING PROCEDURE

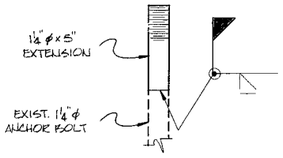
STEP-1 REMOVE NUTS FROM EXISTING ANCHOR BOLTS.
WELD 5" BOLT EXTENSIONS ONTO EXISTING ANCHOR BOLTS, (SPANS No. 1 AND 4 ONLY), SEE DETAIL "X" THIS SHEET.

STEP-2 JACK SUPERSTRUCTURE 5" VERTICALLY.

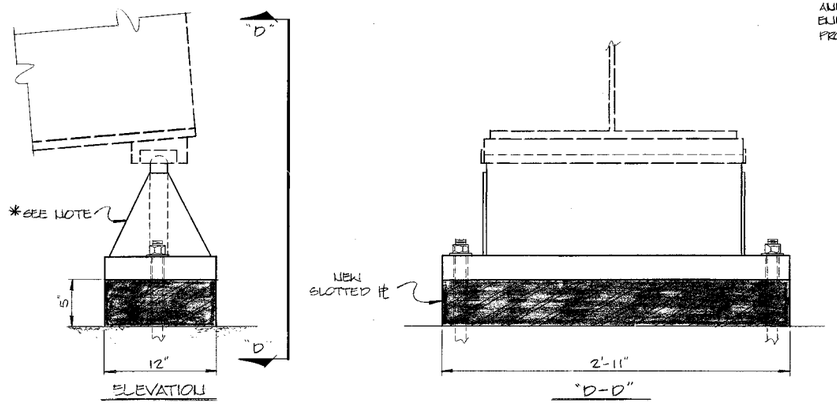
STEP-3 FOR ALL BEAMS EB11 THRU EB30, THE EXISTING BEARING DEVICES SHALL BE REMOVED, CLEANED, AND REMOUNTED AT THE OPPOSITE END OF THE BEAM.

STEP-4 WELD 5" BOLT EXTENSIONS ONTO EXISTING ANCHOR BOLTS, (SPANS No. 2&3), SEE DETAIL "X" THIS SHEET.

STEP-5 INSTALL SLOTTED PLATES AS REQUIRED.

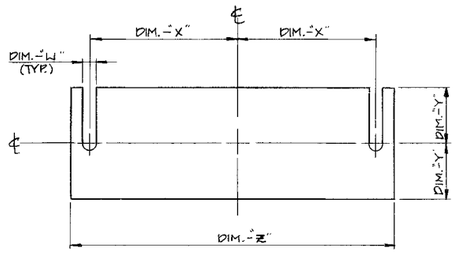


DETAIL "X"



EXISTING BEARING TYPE - FD

* - NOTE: EXISTING BEARING DEVICES TYPE ED & FD TO BE REMOVED, CLEANED, AND REMOUNTED AT THE OPPOSITE END OF THE BEAM. SEE JACKING PROCEDURE.



SLOTTED PLATE DETAIL

NOTE: PLATE CAN BE EITHER; ONE SOLID PLATE OR SEVERAL PLATES WELDED TOGETHER. PLATE(S) TO BE 5" THICK.

NOTE: CONTRACTOR TO VERIFY EXIST. BEARINGS AND ANCHOR BOLT LOCATIONS PRIOR TO FABRICATION OF SLOTTED PLATES.

EXIST. BRG. TYPE	DIMENSIONS			
	"W"	"X"	"Y"	"Z"
EA	1⅞"	9"	4"	1'-10"
EB	1⅞"	11"	4"	2'-2"
ED	1⅞"	1'-3½"	6"	2'-11"
FA	1⅞"	9"	3"	1'-10"
FB	1⅞"	11"	3"	2'-2"
FD	1⅞"	1'-3½"	6"	2'-11"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

JACKING DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION — 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WAP DATE 3-85
DRAWN BY SDS DATE 3-85
SUPERVISED BY WAP & JMB DATE 3-85
CHECKED BY WAP DATE

CORRECT Wilson L Foreall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

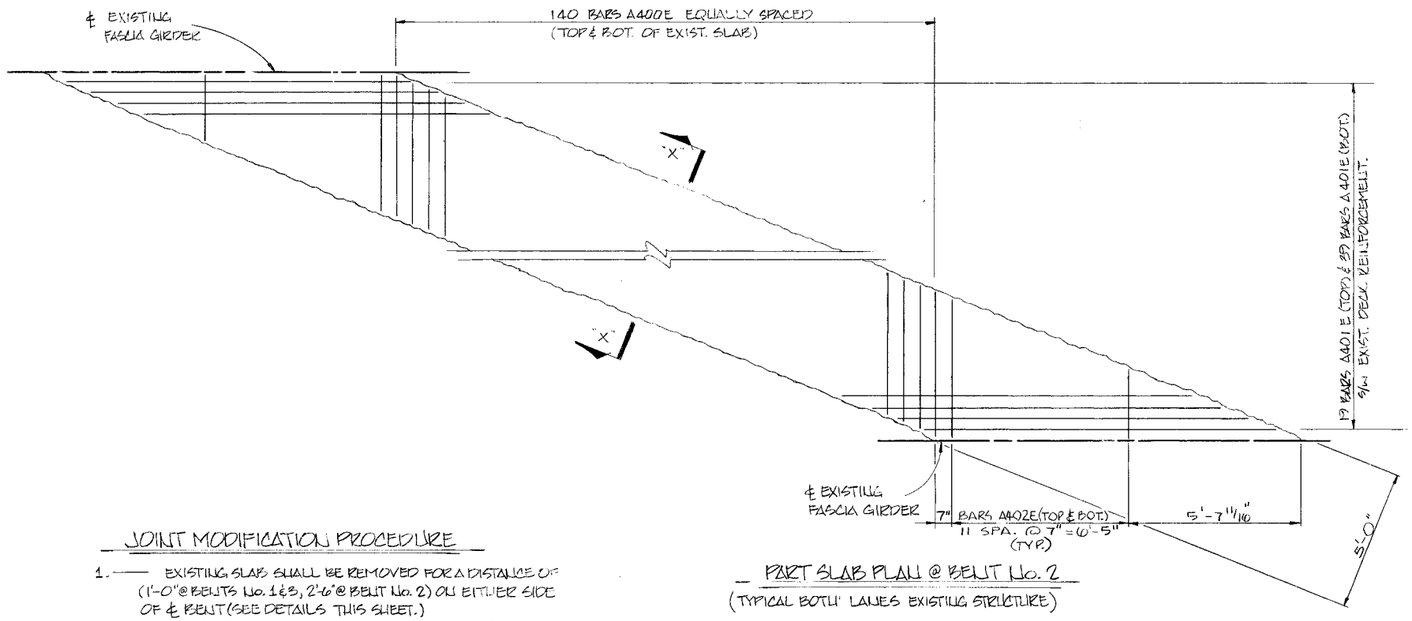
M-130-15

CONST. NO. 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6/16/86	JMB	ADDED BARS A56-E & W A56-E
			& BARS N50-E @ SLAB OVER
			BENT NO. 1 & 3

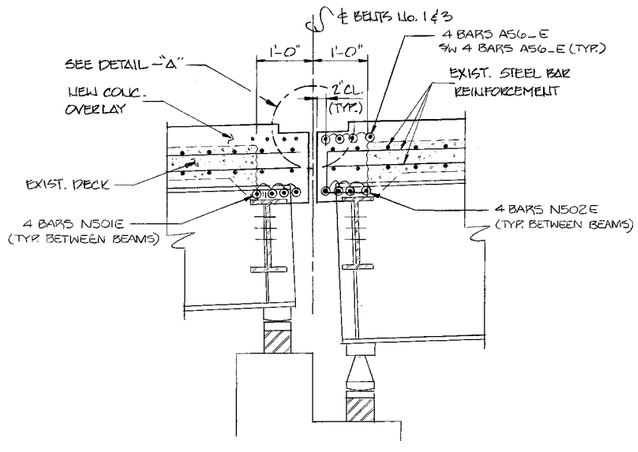


PART SLAB PLAN @ BENT No. 2
(TYPICAL BOTH LANES EXISTING STRUCTURE)

NOTE: ACCEPTABLE ALTERNATES FOR EXPANSION JOINT INCLUDE THE FOLLOWING; DELASTIFLEX CP-200, OMFLEX 25, OR STEELFLEX RS200 MAXIMUM ALLOWABLE TOTAL MOVEMENT TO BE A MILIMUM OF 2". SEE NOTE NO. 21 ON DRAWING NO. M-130-3.

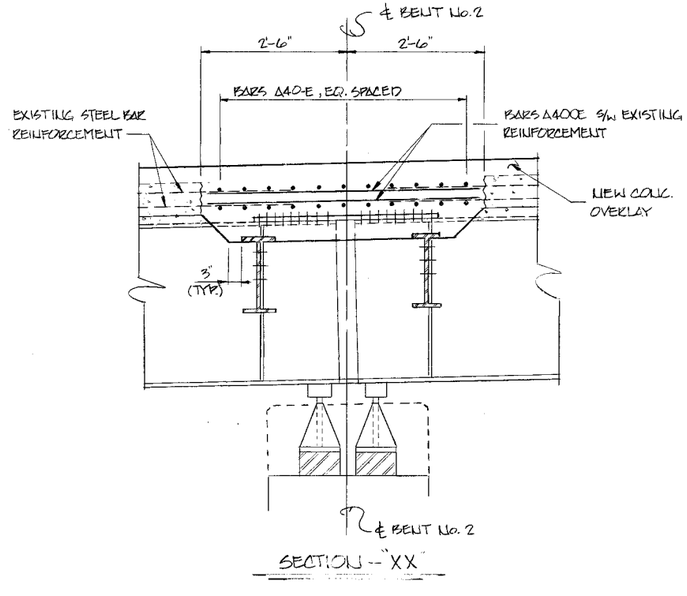
JOINT MODIFICATION PROCEDURE

1. —— EXISTING SLAB SHALL BE REMOVED FOR A DISTANCE OF (1'-0" @ BENTS No. 1 & 3, 2'-6" @ BENT No. 2) ON EITHER SIDE OF ℄ BENT (SEE DETAILS THIS SHEET.)
2. —— ALL EXISTING JOINT MATERIAL SHALL BE REMOVED.
3. —— SPLICE EXISTING BEAMS @ BENT No. 2 AS SHOWN ON DRAWING No. M-130-14 AND PLACE NEW STEEL BAR REINFORCEMENT AS SHOWN THIS SHEET.
4. —— CONCRETE FOR JOINT MODIFICATION SHALL BE POURED CONCURRENTLY WITH SLAB.



NOTE: CARE SHALL BE TAKEN TO PRESERVE EXISTING STEEL BAR REINFORCEMENT DURING SLAB REMOVAL OPERATIONS.

EXPANSION JOINT DETAILS Δ1
(AT RT. ∡'s TO ℄ OF BENT)
(REINFORCING STEEL OVER EXIST. DECK OMITTED FOR CLARITY EXCEPT FOR EDGE BEAM REINF.



SECTION -- "XX"

DESIGNED BY WAP DATE 4-85
DRAWN BY SJDS DATE 4-85
SUPERVISED BY JLC & JMB DATE 4-85
CHECKED BY WAP DATE 6-85

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

EXPANSION JOINT MODIFICATION DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION -- 226+26.91
DAVIDSON COUNTY
1985

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

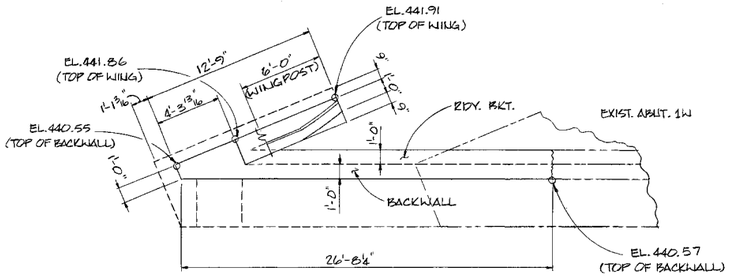
M-130-16

CONST. NO. 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

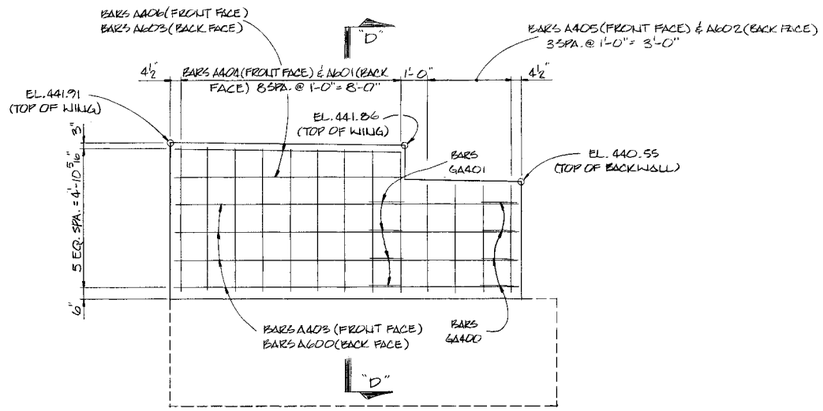
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

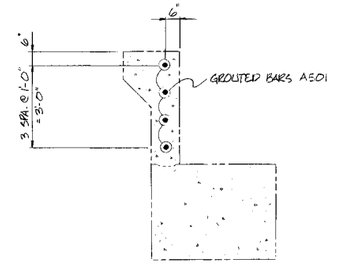
NO.	DATE	BY	BRIEF DESCRIPTION



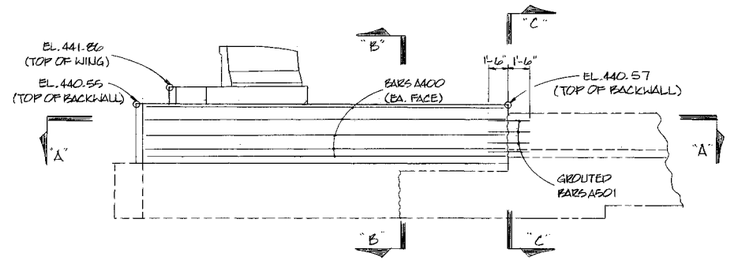
PLAN
(WEST SIDE)



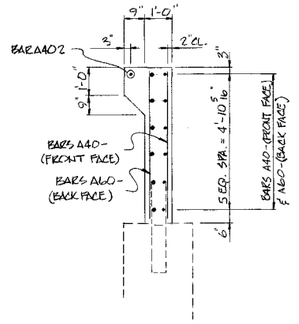
WING ELEVATION
(WEST SIDE)



SECTION - "CC"



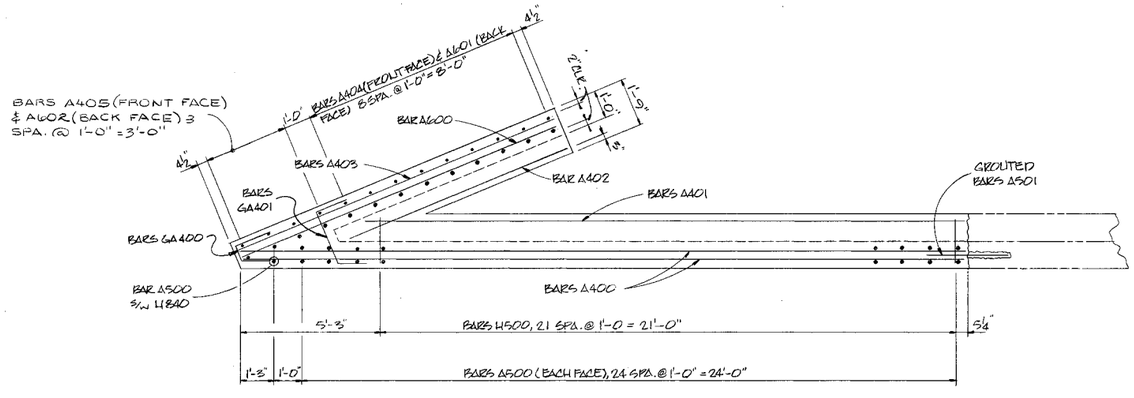
ELEVATION
(WEST SIDE)



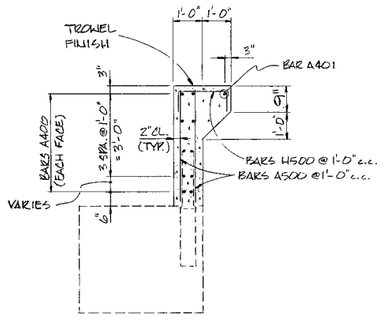
SECTION "DD"

NOTE: WHEN POURING WINGS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR BRIDGERAIL. SEE DWG. M-28-1 FOR DETAILS.

NOTE: TOP OF BACKWALL TO BE TROWELED SMOOTH.



SECTION - "AA"



SECTION - "BB"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS AT ABUTMENT NO. 1

WIDENING OF I-65 OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY	WAP	DATE	5-83
DRAWN BY	SDB	DATE	5-83
SUPERVISED BY	J.C.L.JMB	DATE	5-83
CHECKED BY	W.A.P.	DATE	5-83

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

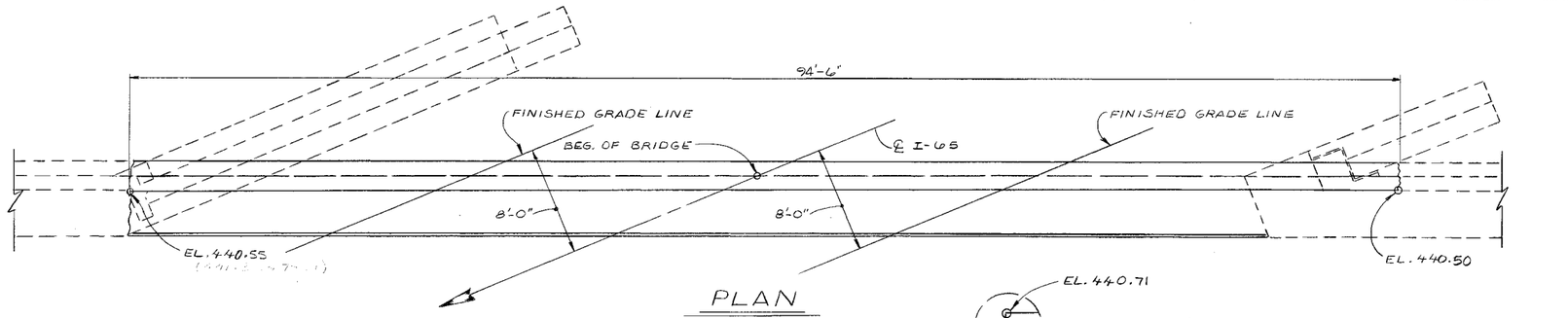
M-130-17

CONST. NO. 19010-3124-44 (I)
CONST. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

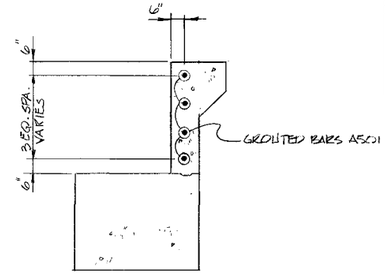
NO.	DATE	BY	BRIEF DESCRIPTION



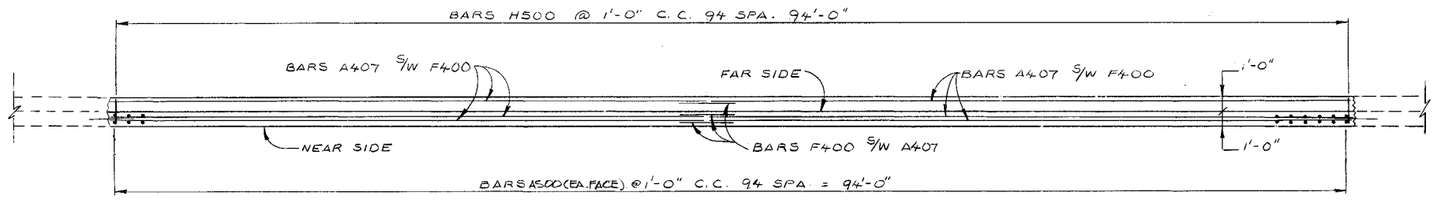
PLAN

DETAIL "K"

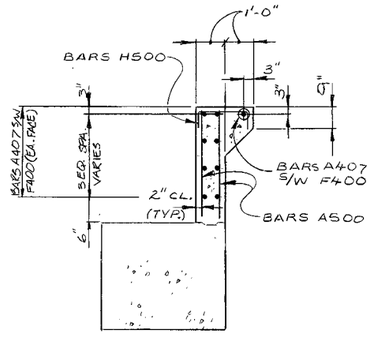
ELEVATION
(LOOKING BACK ON SURVEY)



SECTION "J-J"
(SHOWING GROUTED BARS)



SECTION "G-G"



SECTION "H-H"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS AT ABUTMENT NO. 1 CONTD
WIDENING OF I-65 OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WP DATE 10-4-3
DRAWN BY K.Z.Kelley DATE 10-5-3
SUPERVISED BY WP & WMB DATE 10-5-3
CHECKED BY WP DATE 10-5-3

CORRECT Clellon L. Sneed
ENGINEER OF STRUCTURES
APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

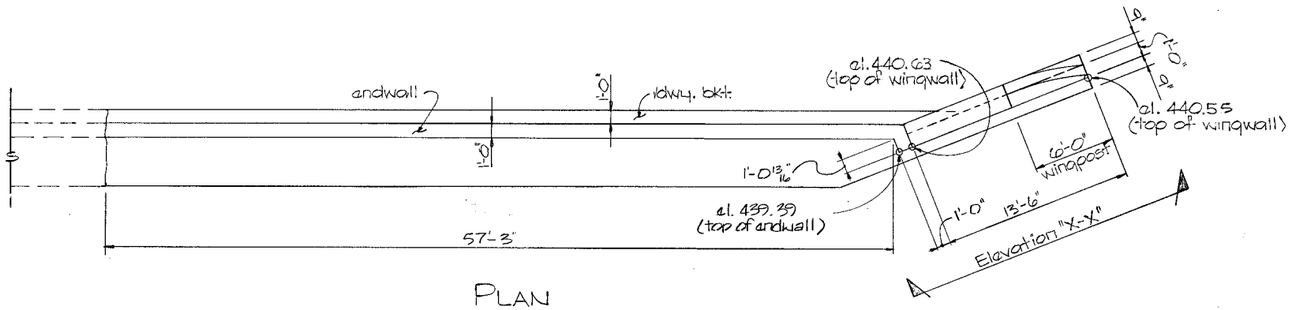
M-130-18

CONST. NO. 19010-3124-44 (1)
CONST. NO. 19010-3129-44 (IR)

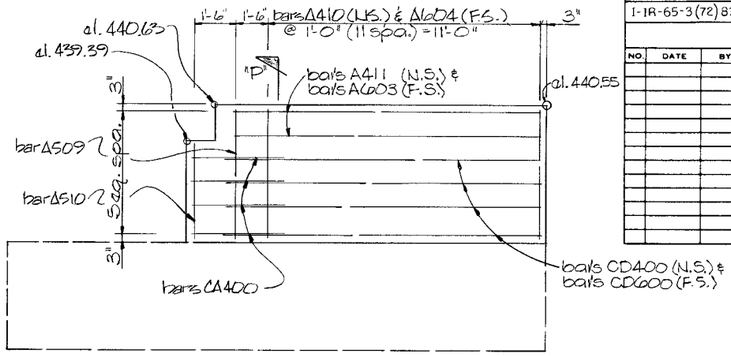
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

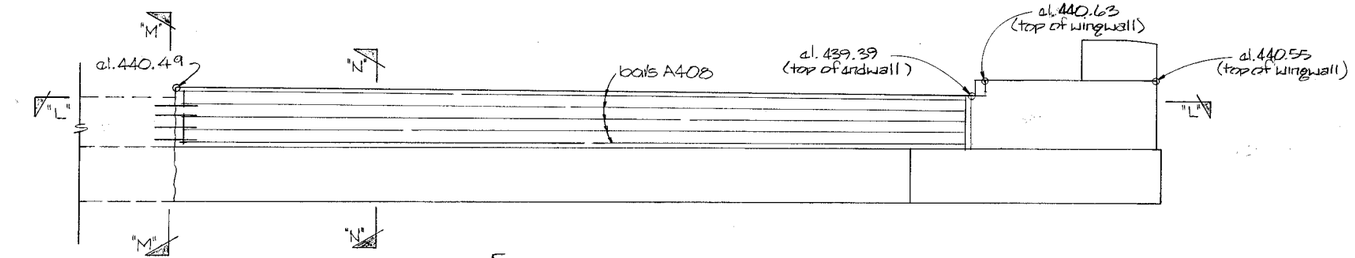


PLAN

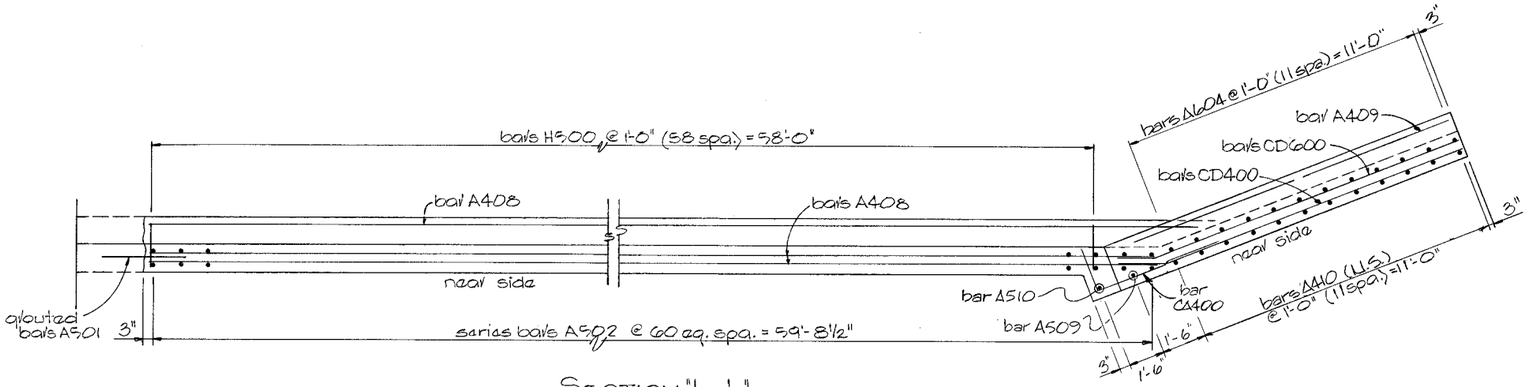


ELEVATION "X-X"

"P"

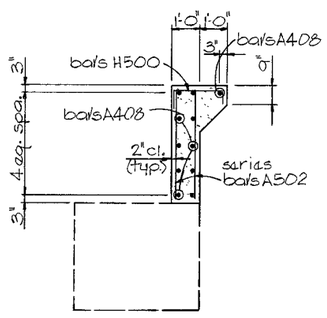


ELEVATION

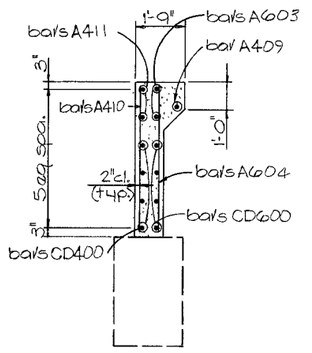


SECTION "L-L"

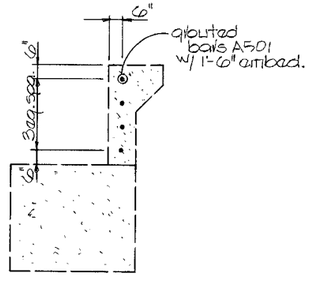
Note: N.S. denotes near side
F.S. denotes far side



SECTION "N-N"



SECTION "P-P"



SECTION "M-M"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE-DETAILS AT ABUTMENT NO. 1 CONTD
WIDENING OF I-65 OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY W.A.P. DATE May 1983
DRAWN BY T. Wilson DATE June 1983
SUPERVISED BY W.L.C. & J.M.B. DATE June 1983
CHECKED BY H.A.P. DATE 6-83

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

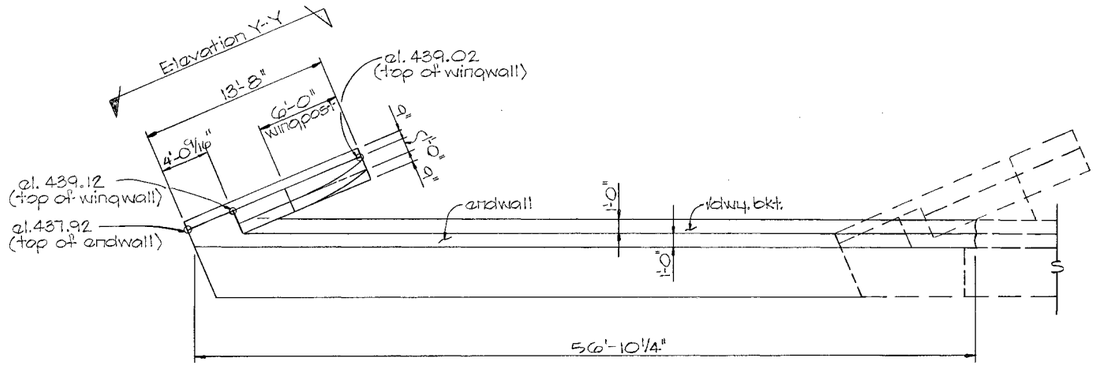
M-130-19

CONST. NO. 19010-3124-44 (I)
CONST. NO. 19010-3129-44 (IR)

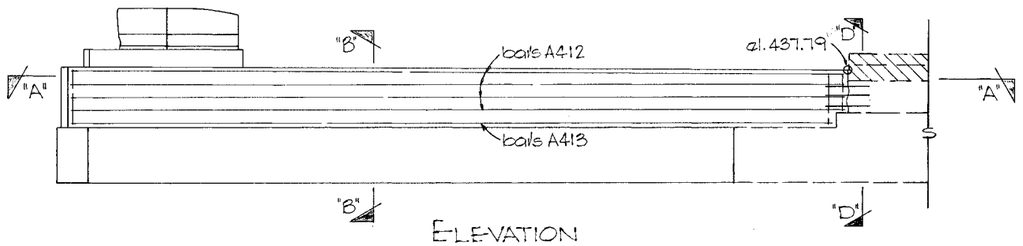
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

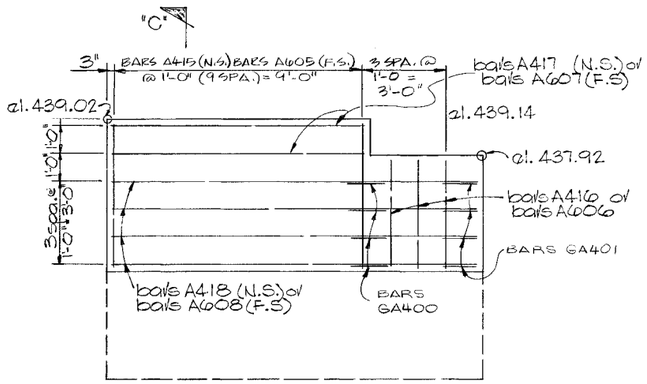
NO.	DATE	BY	BRIEF DESCRIPTION



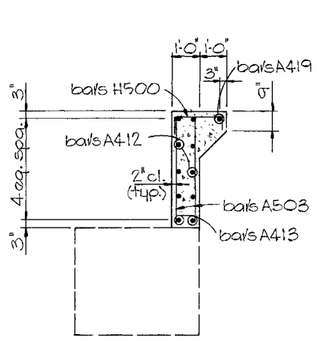
PLAN



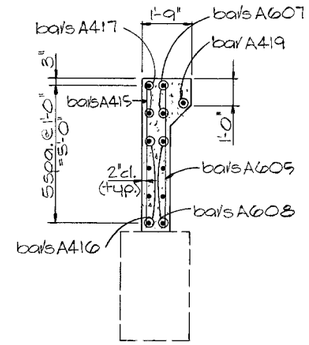
ELEVATION



ELEVATION "Y-Y"



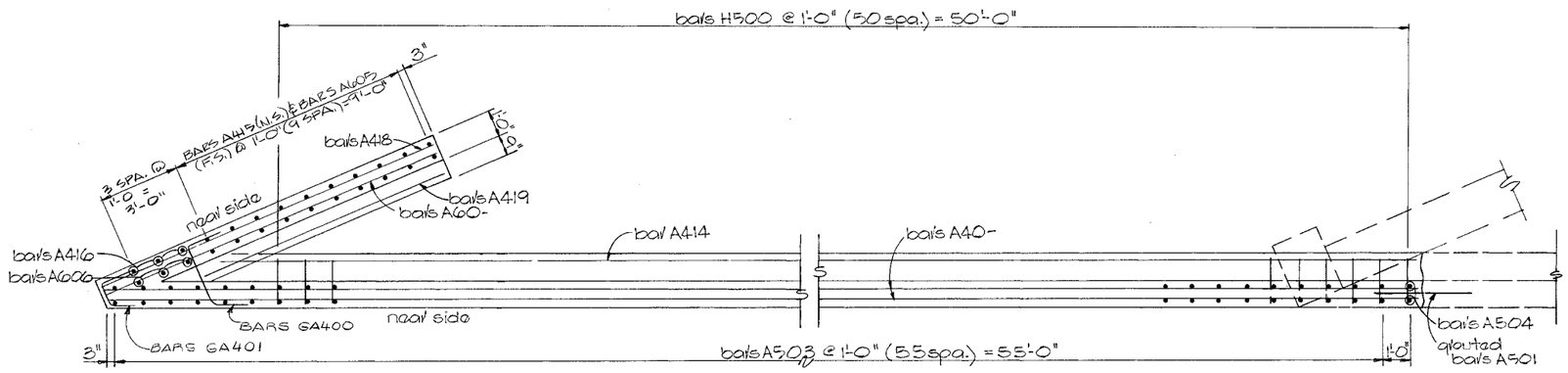
SECTION "B-B"



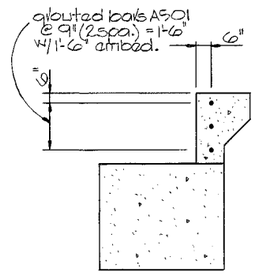
SECTION 'C-C'

Note: When pouring wingwalls provisions shall be made for reinforcing steel for wingpost and parapet for details of wingpost and parapet see standard drawing No. M-28-1.

Note: N.S. denotes Near Side
F.S. denotes Far Side



SECTION "A-A"



SECTION "D-D"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS AT ABUTMENT NO. 2.
WIDENING OF I-65 OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY W.A.P. DATE May 1983
DRAWN BY T. Wilson DATE June 1983
SUPERVISED BY J.L.C. & J.M.B. DATE June 1983
CHECKED BY W.A.P. DATE June 1985

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

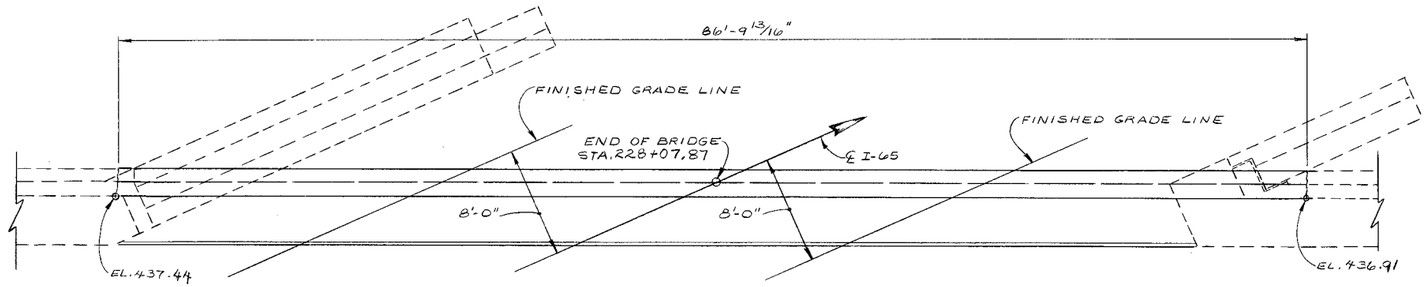
M-130-20

CONST. NO. 19010 - 3124 - 44 (1)
CONST. NO. 19010-3129-44 (IR)

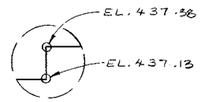
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72) 83	1985	

REVISIONS

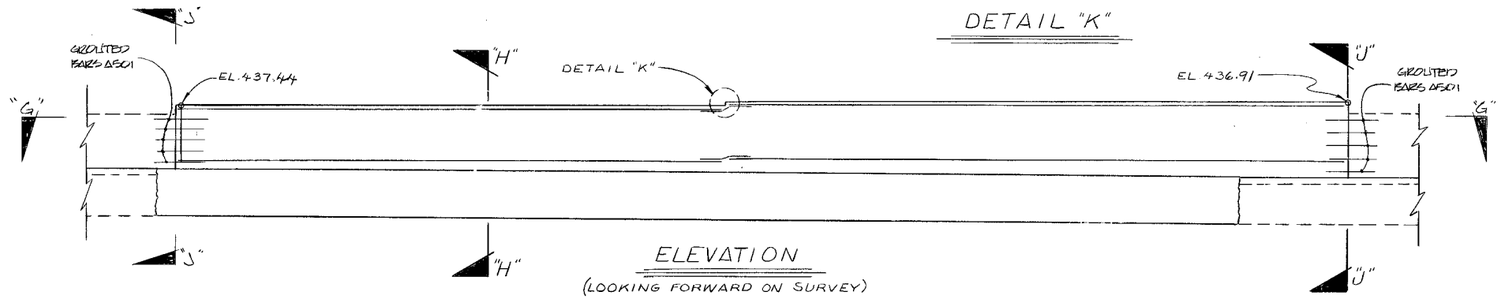
NO.	DATE	BY	BRIEF DESCRIPTION



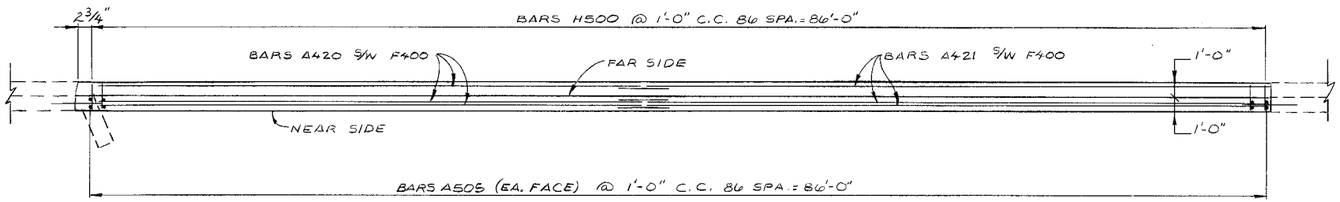
PLAN



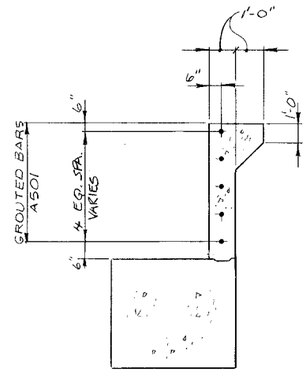
DETAIL "K"



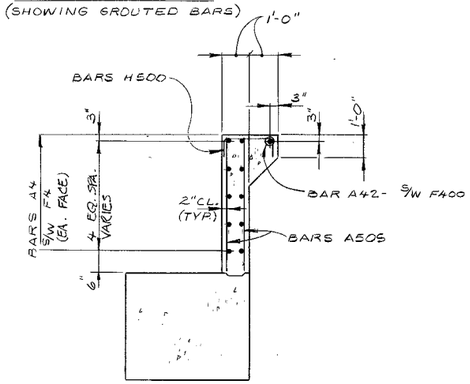
ELEVATION
(LOOKING FORWARD ON SURVEY)



SECTION "G-G"



SECTION "J-J"
(SHOWING GROUTED BARS)



SECTION "H-H"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS AT ABUTMENT NO. 2 CONTD
WIDENING OF I-65 OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WP DATE 6-83
DRAWN BY KEMcCoy DATE 6-83
SUPERVISED BY WC & JMB DATE 6-83
CHECKED BY WP DATE 6-83

CORRECT Clellon L Foveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

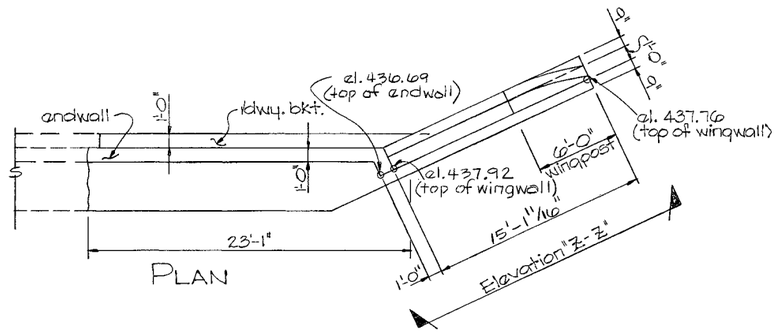
M-130-21

Const. No. 19010-3124-44
Const. No. 19010-3129-44

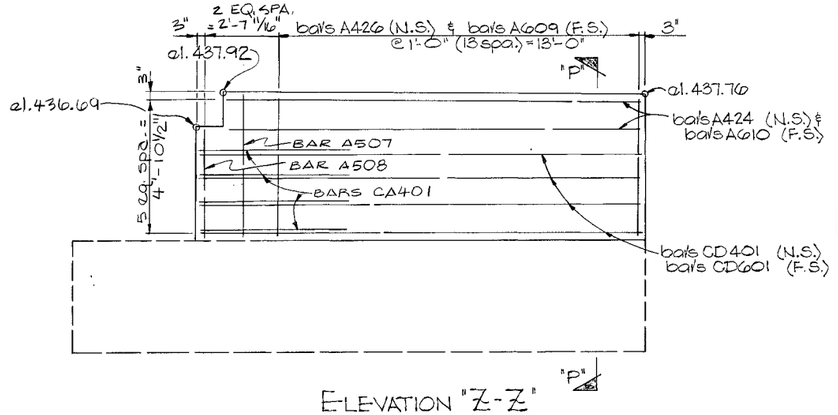
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO	DATE	BY	BRIEF DISCRIPTION

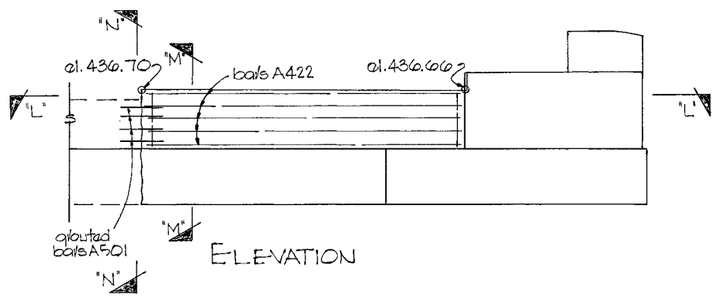


PLAN

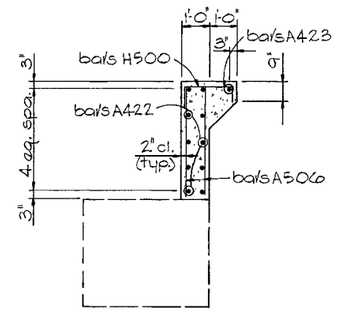


ELEVATION "Z-Z"

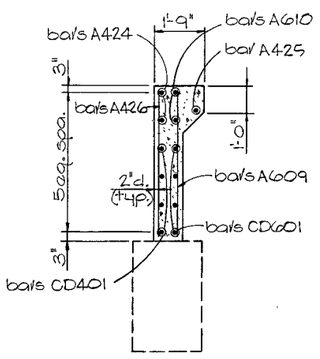
Note: For notes see dwg. no. M-130-20.



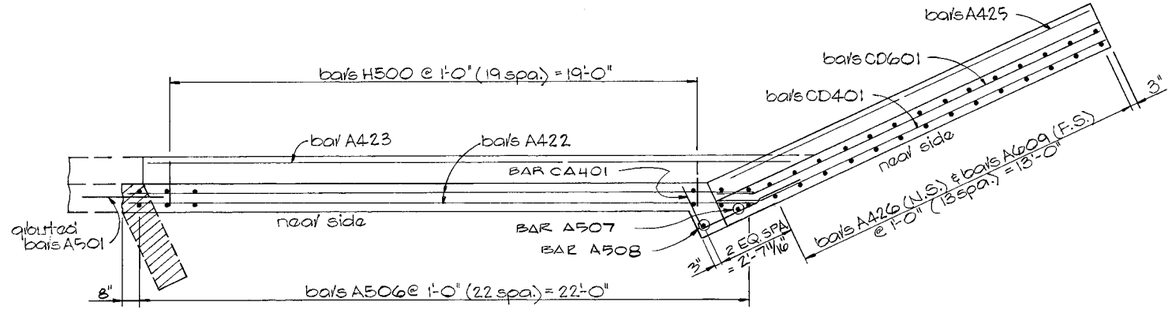
ELEVATION



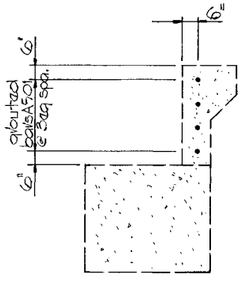
SECTION "M-M"



SECTION "P-P"



SECTION "L-L"



SECTION "N-N"

Note: N.S. denotes near side
F.S. denotes far sid

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS AT ABUTMENT NO. 2 CONT'D
WIDENING OF I-65 OVER NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Loveall

APPROVED Lewis Evans

M-130-22

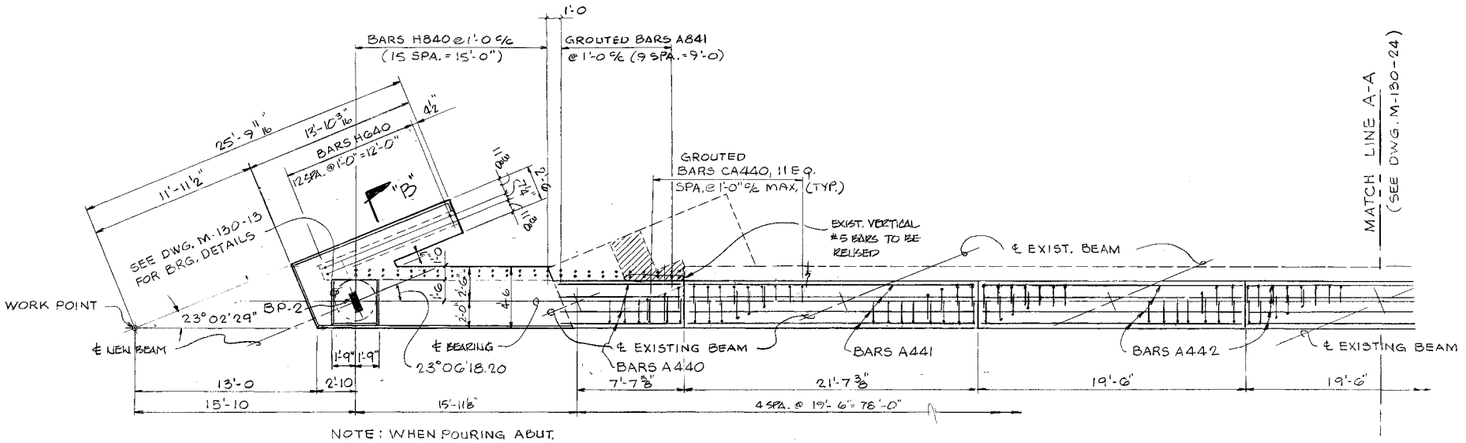
DESIGNED BY	W.A.P.	DATE May 1983
DRAWN BY	T.Wilson	DATE June 1983
SUPERVISED BY	J.L.C. & J.M.B.	DATE June 1983
CHECKED BY	W.A.P.	DATE June 1983

Const. No. 19010-3124-44 (I)
Const. No. 19010-9129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

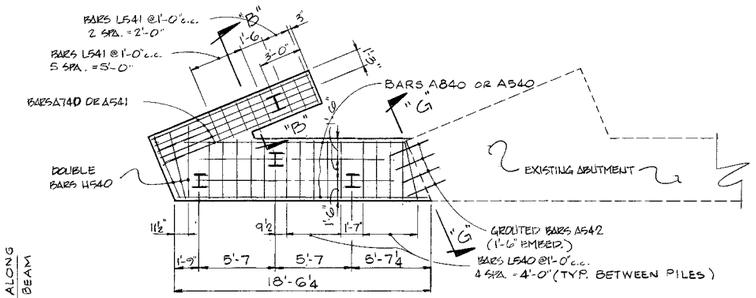
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2-19-86	J.M.B.	CHANGED ELEVATION AT BRIDGE SEAT

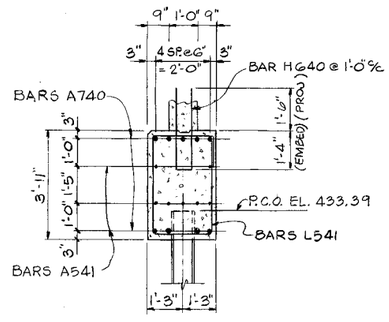


NOTE: WHEN POURING ABUT. PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. (1¼ x 1¼) W/ 4" PROJ.

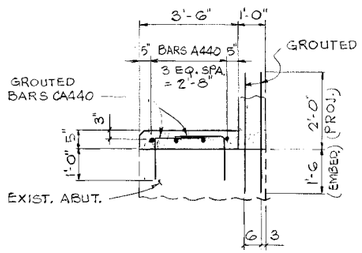
PLAN



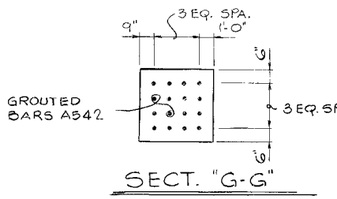
SECTION ~ "A-A"



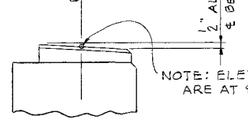
SECTION ~ "B-B"



SECTION ~ "D-D"

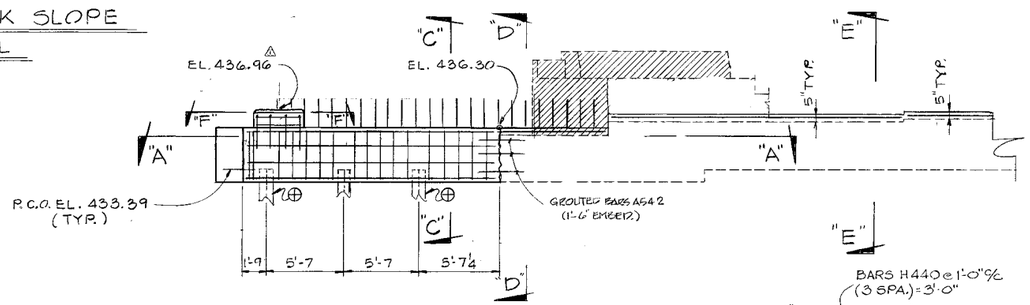


SECT. "G-G"



RISER BLOCK SLOPE DETAIL

NOTE: HATCHED AREAS TO BE REMOVED AS INDICATED. EXIST. WING TO BE REMOVED TO EL. 439.95



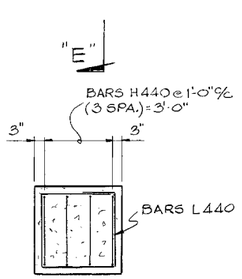
ELEVATION
(LOOKING BACK ON SURVEY)
⊕ BATTER FORWARD 2:12

NOTES:

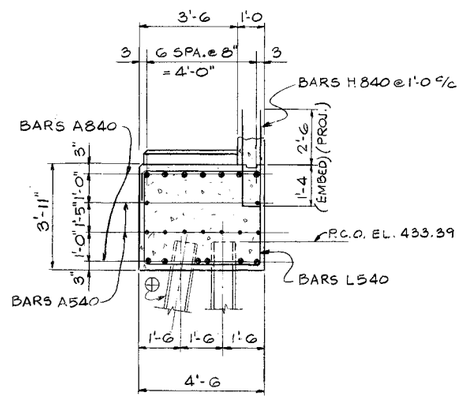
1.) RISER BLOCKS TO BE POURED MONOLITHICALLY WITH ABUTMENT BEAM.

2.) RISER BLOCK BEARING PAD SURFACES TO CONFORM TO BOTTOM OF BEAM GRADE.

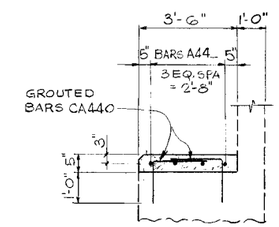
3.) 1" CHAMFER TYP. ALL EXPOSED CORNERS.



SECTION ~ "F-F"
(TYP. ALL RISERS)



SECTION ~ "C-C"



SECTION ~ "E-E"

ESTIMATED QUANTITIES	
CLASS "A" CONCRETE C.Y.	STEEL BAR REINFORCEMENT LBS.
126.0	15,365

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1
WIDENING OF I-65
OVER
NORTH 1ST ST.
STA. 226+26.91
DAVIDSON CO.

CORRECT Clellon L Fowal 1985
ENGINEER OF STRUCTURES

APPROVED
DIRECTOR OF HIGHWAYS

M-130-23

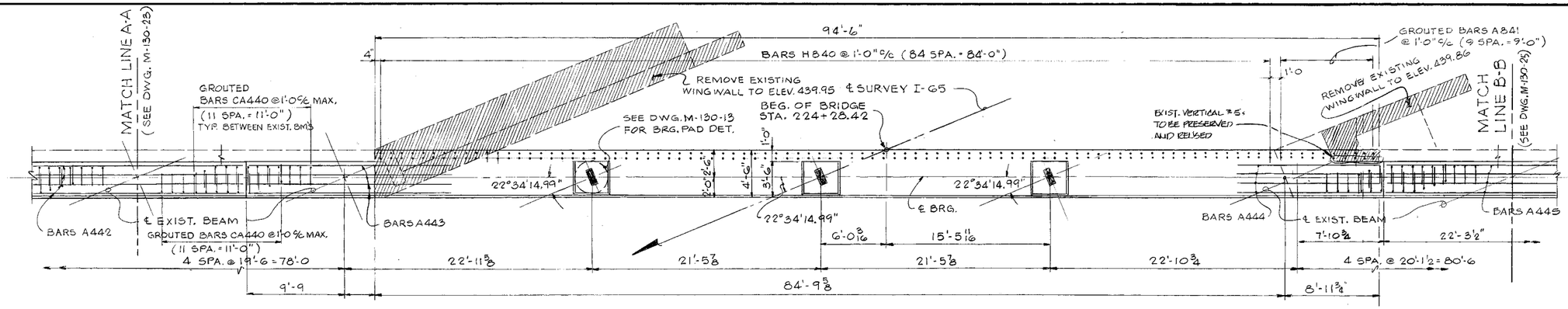
DESIGNED BY W.A.P. DATE 5-83
DRAWN BY B.T.R. DATE 5-83
SUPERVISED BY J.L.C. & J.M.B. DATE 5-83
CHECKED BY W.A.P. DATE 6-83

CONST. NO. 19010-3124-44 (1)
CONST. NO. 19010-3129-44 (1R)

PROJECT NO.	YEAR	SHEET NO.
I-1R-65-3(72)83	1985	

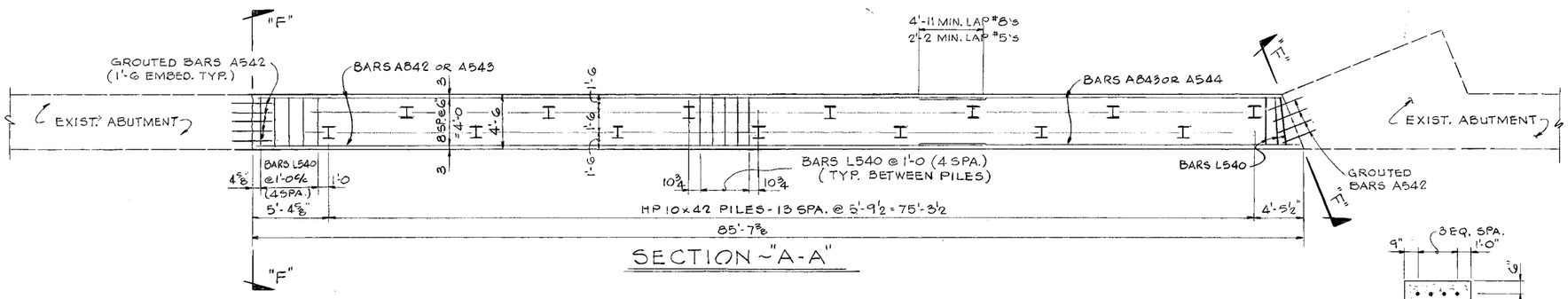
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

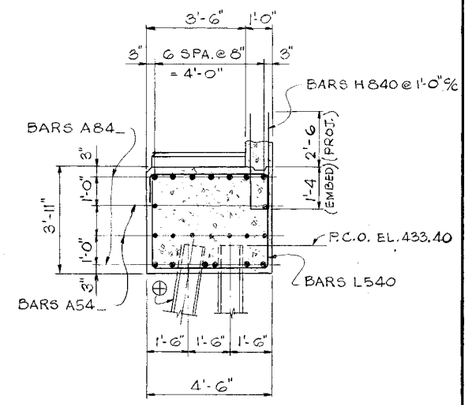


PLAN

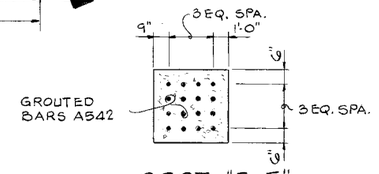
NOTE: WHEN POURING ABUTMENT BEAM PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJECTION 4".



SECTION ~ "A-A"



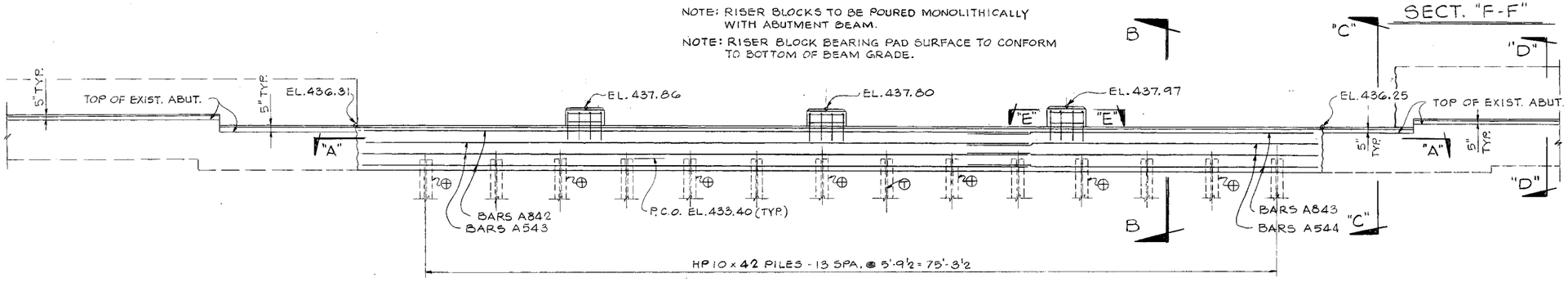
SECTION ~ "B-B"



SECT. "F-F"

NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH ABUTMENT BEAM.

NOTE: RISER BLOCK BEARING PAD SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.



ELEVATION

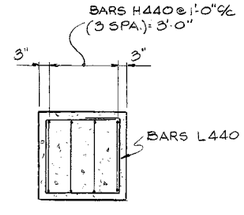
(LOOKING BACK ON SURVEY)

⊕ BATTER FORWARD 2:12

Ⓣ DENOTES TEST PILE

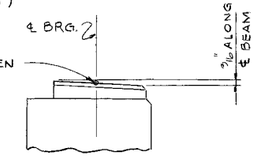
NOTE: ELEVATIONS GIVEN ARE AT ℄ BRG. & ℄ BEAM.

SECTION ~ "C-C"

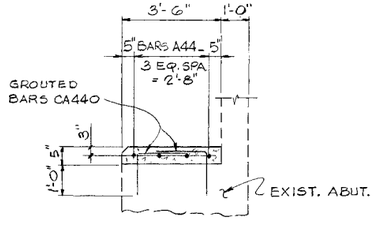


SECTION ~ "E-E"

(TYP. ALL RISERS)



RISER BLOCK SLOPE DETAIL



SECTION ~ "D-D"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1 (CONT'D)
WIDENING OF I-65
OVER
NORTH 1ST ST.
STA. 226+26.91
DAVIDSON CO.

DESIGNED BY W.A.P. DATE 5-83
DRAWN BY B.J.R. DATE 5-83
SUPERVISED BY J.L.G. & J.M.B. DATE 5-83
CHECKED BY W.A.P. DATE 6-83

CORRECT Charlton L. Foxwell 1985
ENGINEER OF STRUCTURES

APPROVED Lewis Donelson
DIRECTOR OF HIGHWAYS

M-130-24

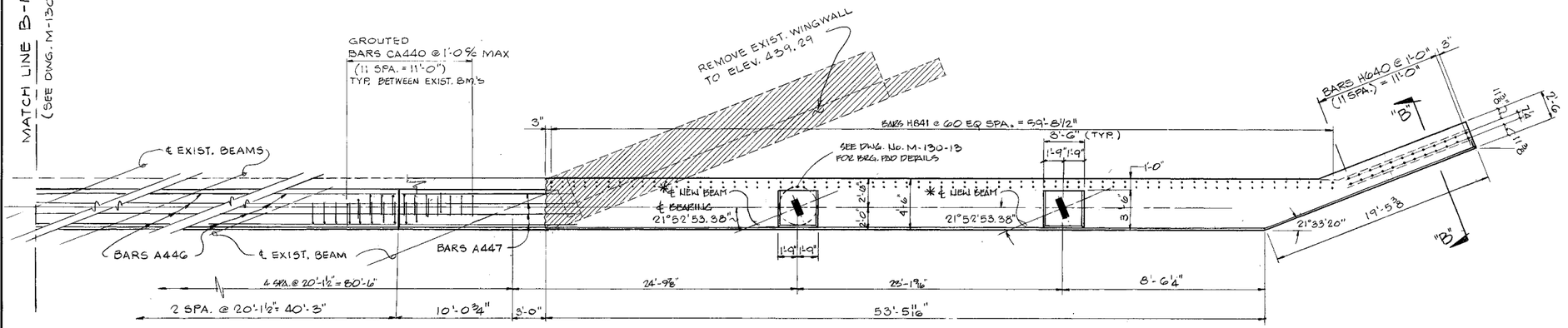
Const. No. 19010-3124-44 (1)
Const. Lic. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

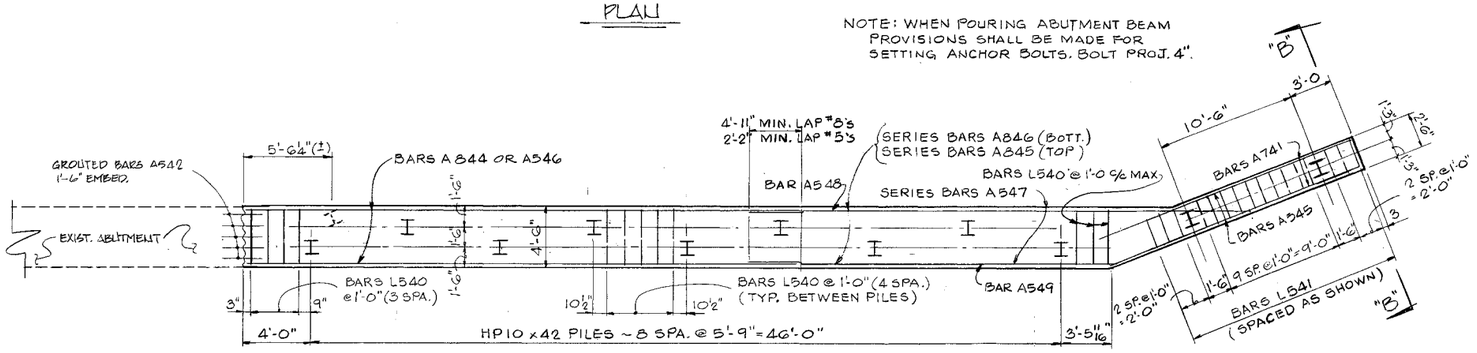
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-19-86	J.M.B.	CHANGED ELEVATION AT BRIDGE SEAT

MATCH LINE B-B
(SEE DWG. M-130-24)



PLAN

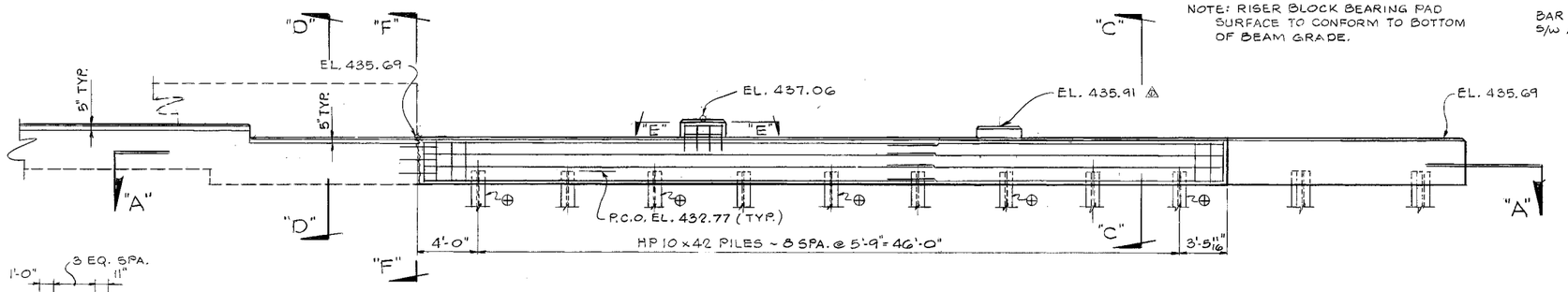
NOTE: WHEN POURING ABUTMENT BEAM PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJ. 4".



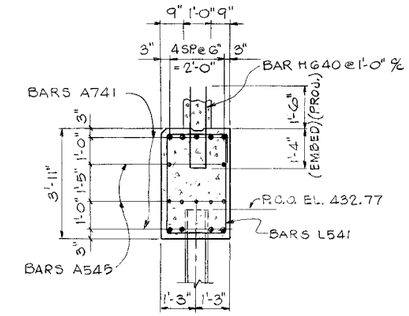
SECTION ~ "A-A"

NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH ABUT. BEAM

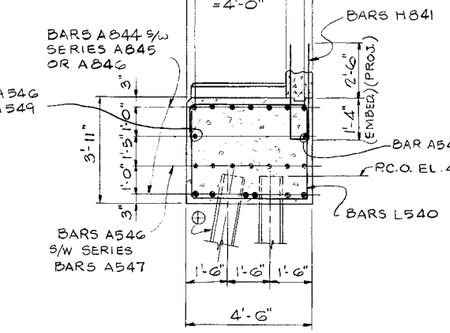
NOTE: RISER BLOCK BEARING PAD SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.



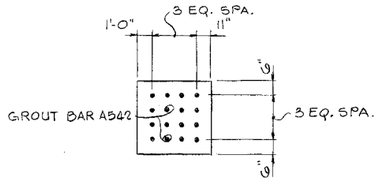
ELEVATION
(LOOKING BACK ON SURVEY)
⊕ BATTER FORWARD 2:12



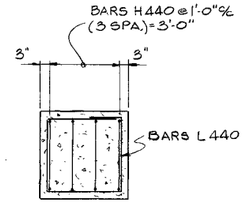
SECTION ~ "B-B"



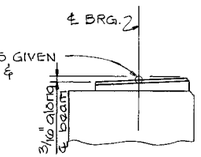
SECTION ~ "C-C"



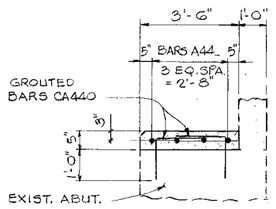
SECT. "F-F"



SECTION ~ "E-E"
(TYP. ALL RISERS)



RISER BLOCK SLOPE DETAIL



SECTION ~ "D-D"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1 (CONT'D)
WIDENING OF I-65
OVER
NORTH 1ST ST.
STA. 226+26.91
DAVIDSON CO.
1985

DESIGNED BY W.A.P. DATE 5-83
DRAWN BY BJR DATE 5-83
SUPERVISED BY J.L.C. & J.M.B. DATE 5-83
CHECKED BY ____ DATE ____

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Elam
DIRECTOR OF HIGHWAYS

M-130-25

Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

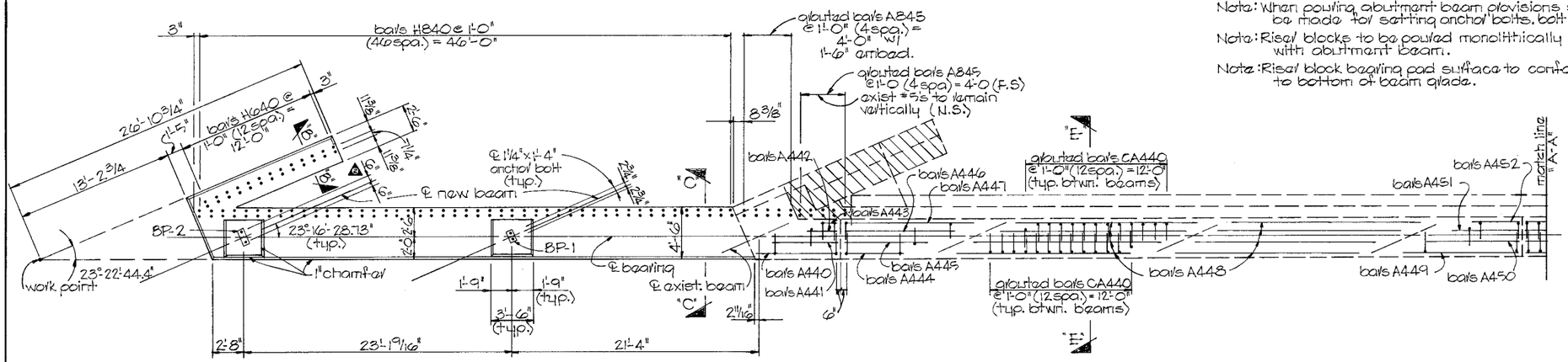
REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	2-19-86	JMB	CHANGED ELEVATION AT BRIDGE SEAT
2	3-3-86	JMB	CHANGED DOWEL BAR LOCATION @ BRG. PAD.
3	3-5-86	JMB	CHANGED ELEV. @ BRIDGE SEATS

Note: When pouring abutment beam provisions shall be made for setting anchor bolts. bolt proj = 4"

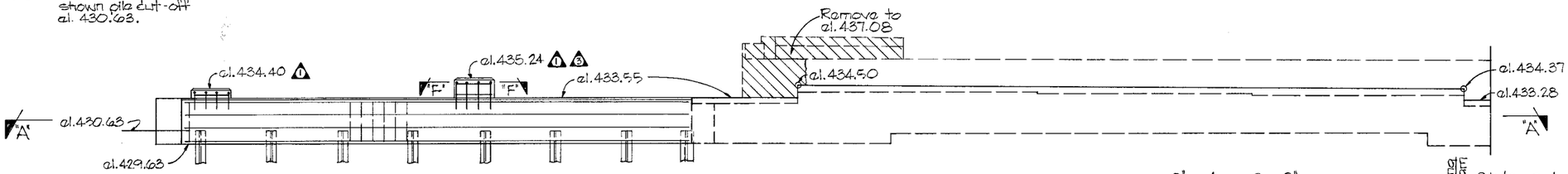
Note: Riser blocks to be poured monolithically with abutment beam.

Note: Riser block bearing pad surface to conform to bottom of beam grade.

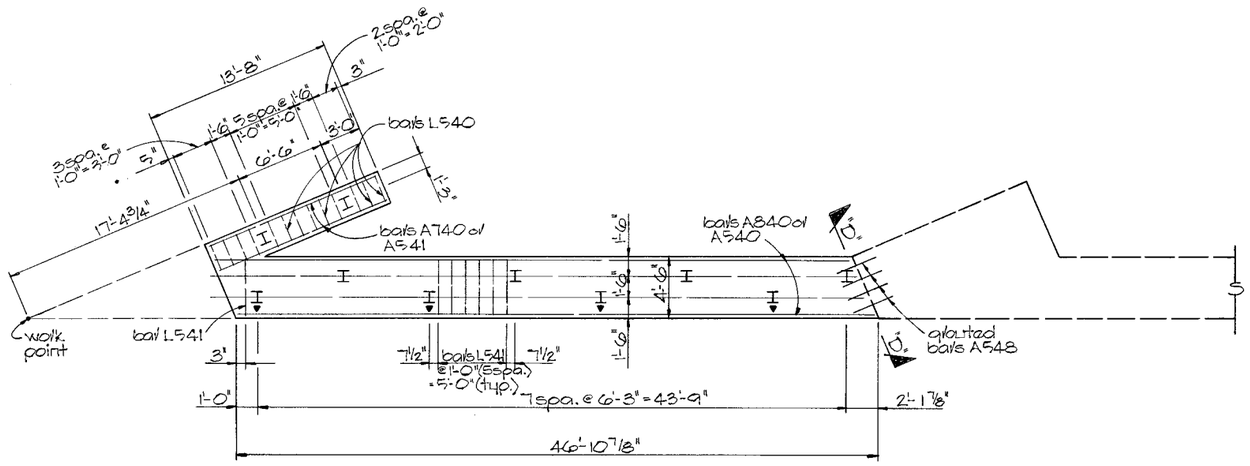


PLAN

Note: Pile in wing not shown pile cut-off el. 430.63.

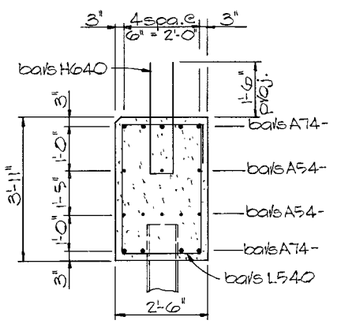


ELEVATION

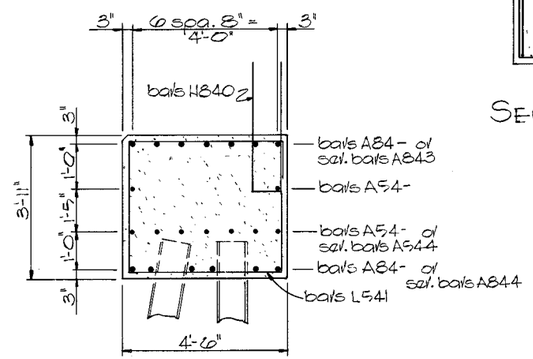


SECTION "A-A"

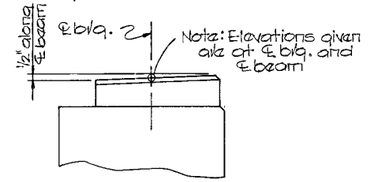
▼ Denotes: Battal piles forward 2:12



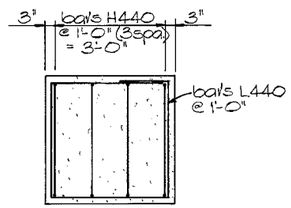
SECTION "B-B"



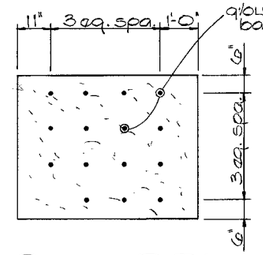
SECTION "C-C"



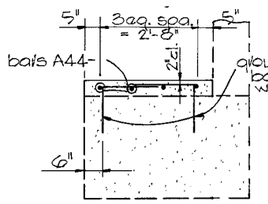
RISER BLOCK SLOPE DETAIL



SECTION "F-F"



SECTION "D-D"



SECTION "E-E"

ESTIMATED QUANTITIES

Class "A" Concrete C.Y.	Steel Bar Reinforcement Lb.
117.4	14,550

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 2
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Loveall

APPROVED Lewis Evans

M-130-26

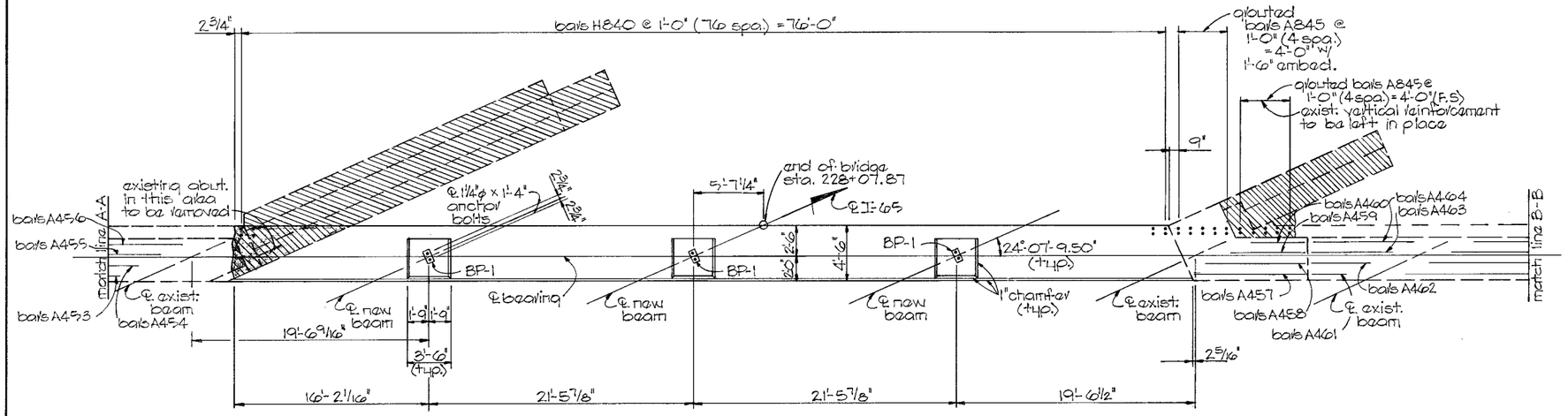
DESIGNED BY W.A.P. DATE May 1983
DRAWN BY T. Wilson DATE May 1983
SUPERVISED BY J.L.C. & J.M.B. DATE May 1983
CHECKED BY W.A.P. DATE June 1983

const. no. 19010-3124-44 (I)
const. no. 19010-3124-44 (IR)

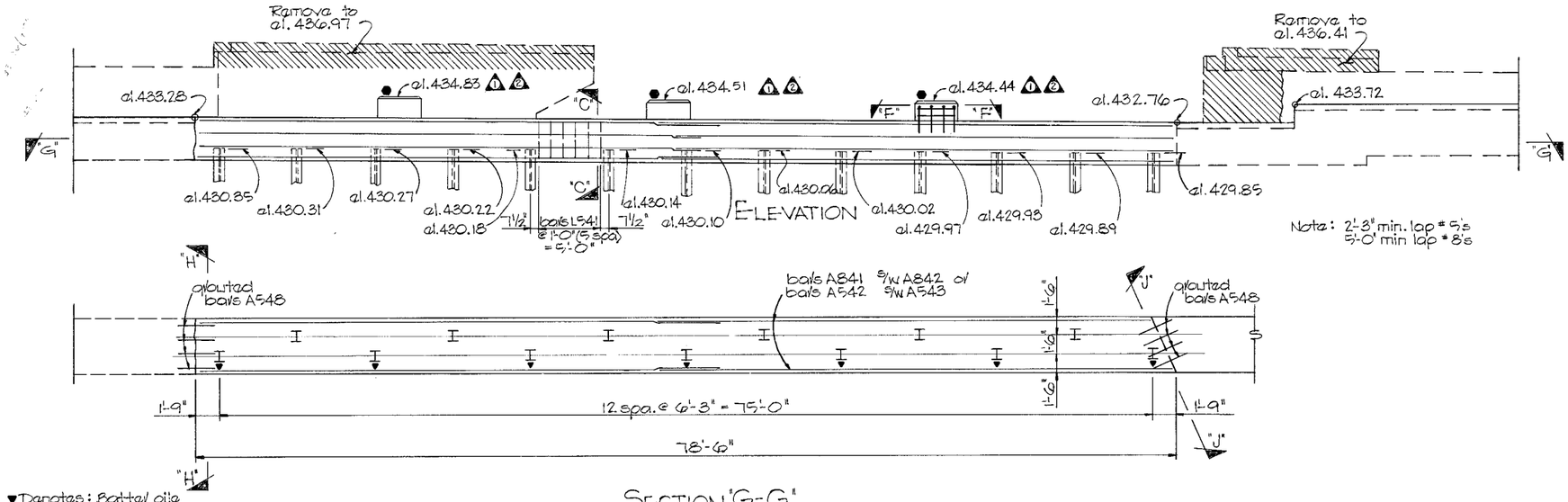
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	2-19-86	JMB.	CHANGED ELEVATION AT BRIDGE SEAT
2	3-5-86	JMB	CHANGED ELEV. @ BRIDGE SEATS.



PLAN



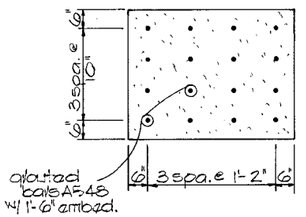
SECTION 'G-G"

▼Denotes: Batter pile forward 2:12

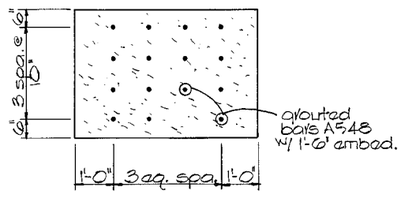
●Denotes: Riser block to be reinforced, see section F-F on dwg. no. M-130-26.

Note: For section C-C and notes see dwg. no. M-130-26.

Note: For Riser Block Slope Detail, see dwg. no. M-130-26.



SECTION H-H



SECTION 'J-J"

DESIGNED BY W.A.P. DATE May 1983
DRAWN BY T. Wilson DATE May 1983
SUPERVISED BY J.L.C. & J.M.B. DATE May 1983
CHECKED BY W.A.P. DATE June 1983

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 2 CONTD.
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Fowvall

APPROVED Lewis Evins

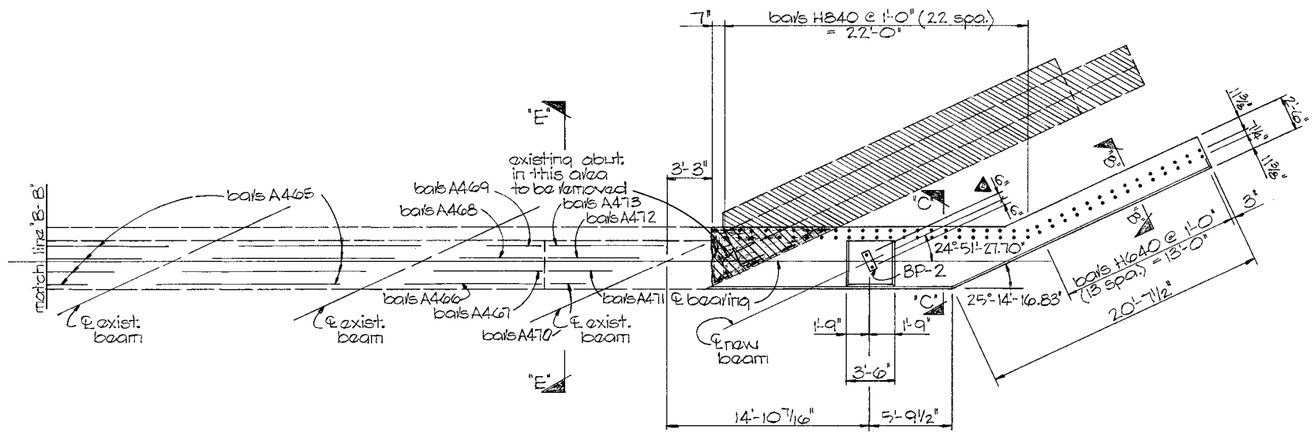
M-130-27

Const. No. 19010-3124-44(1)
Const. No. 19010-3129-44(IR)

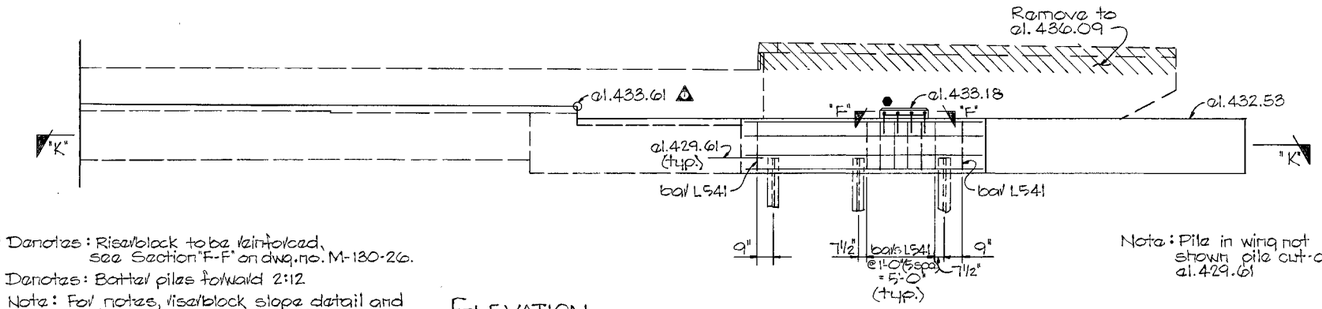
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	2-19-86	JMB	CHANGED ELEVATION AT BRIDGE SEAT
2	3-3-86	HMB	CHANGED DOWEL BAR LOCATION @ BRG. PAD.



PLAN



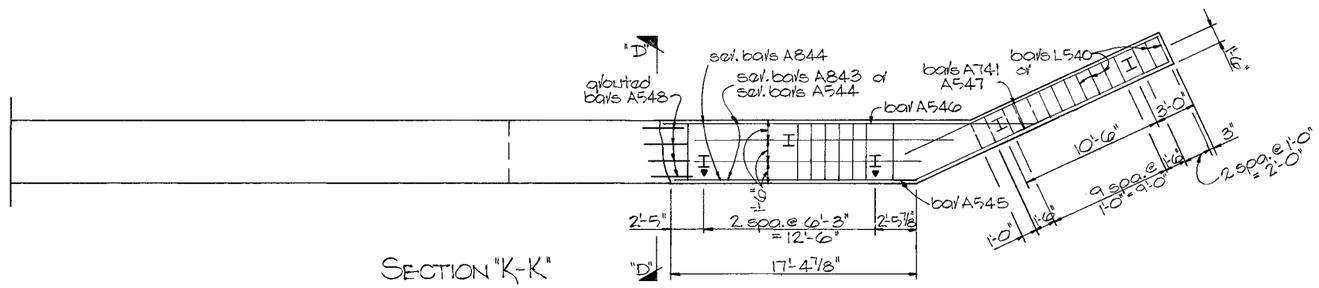
● Denotes: Riser block to be reinforced, see Section "F-F" on dwg. no. M-130-26.

▼ Denotes: Batter piles forward 2:12.

Note: For notes, riser block slope detail and sections, see dwg. no. M-130-26.

ELEVATION

Note: Pile in wing not shown pile cut-off el. 429.61



SECTION "K-K"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 2 CONT'D.
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Loveall

APPROVED Lewis Evans

M-130-28

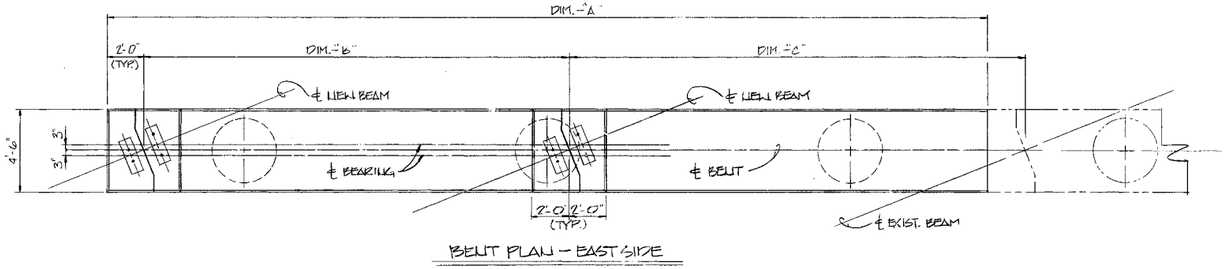
DESIGNED BY W.A.P. DATE May 1985
DRAWN BY T. Wilson DATE June 1985
SUPERVISED BY J.L.C. & J.M.B. DATE June 1985
CHECKED BY W.A.P. DATE June 1985

Const. No. 19010-3124-44 (1)
Const. No. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR 65-3(72) 83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-1-86	JMB	REVISED DIM. "A", "C", & "D" AT BENT # 2
2	2-19-86	J.V.	DELETED BARS A1050 (4 BARS) FROM MAIN REINF
3	2-19-86	JMB	CHANGE ELEVATION AT BRIDGE SEAT
4	3-5-86	JMB	CHANGED ELEV. @ BRIDGE SEATS

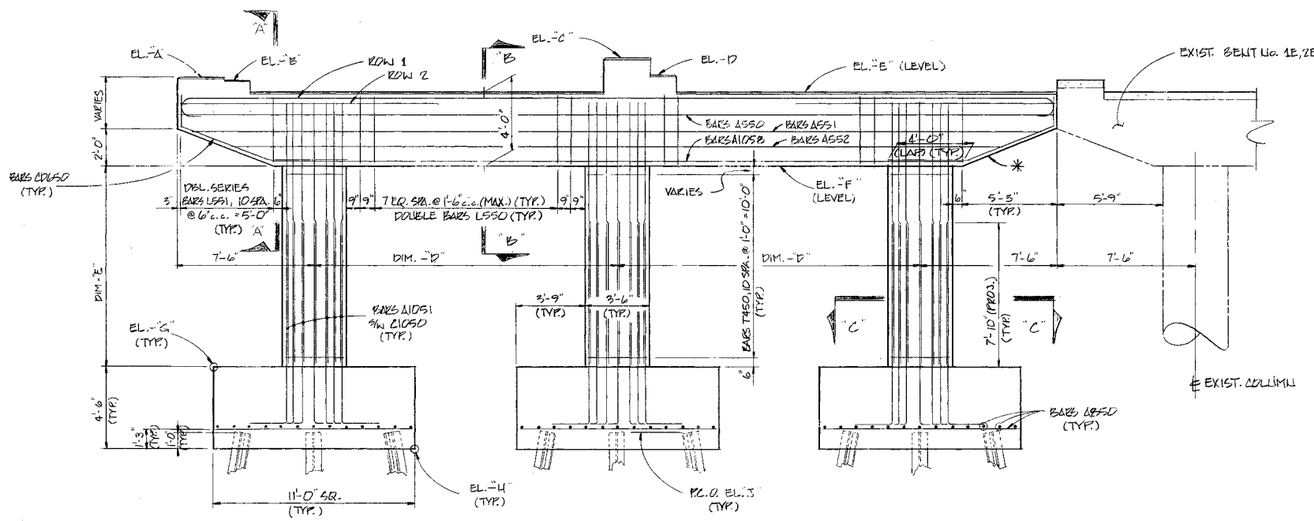


BENT PLAN – EAST SIDE

NOTE: FOR BEARING PAD DETAILS SEE SHEET NO. M-130-13.

TABLE OF DIMENSIONS

DIM.	BENT No. 1	BENT No. 2	BENT No. 3
A	46'-11 5/8"	47'-5 9/16" ▲1	45'-0 3/8"
B	23'-1 9/16"	23'-1 9/16"	23'-1 9/16"
C	23'-10 1/8"	24'-3 5/8" ▲1	21'-10 3/16"
D	15'-11 15/16"	16'-2 9/16" ▲1	15'-0 3/16"
E	10'-11 1/16"	10'-11 3/16"	10'-7 1/2"



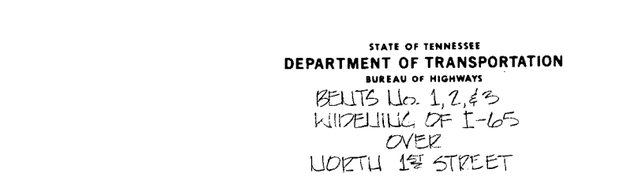
✳ – DENOTES: SLOPE TO MATCH EXIST. BENT.

BENT ELEVATION – EAST SIDE

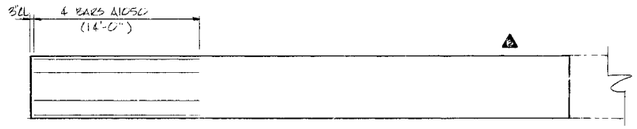
(TYP. BENTS No. 1, 2, & 3 LOOKING FORWARD ON SURVEY)

TABLE OF ELEVATIONS ▲3 ▲4

ELEV.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"
BENT No. 1	435.90	435.85	436.96	436.00	435.07	431.07	420.15	415.65	416.65
BENT No. 2	435.82	435.82	435.85	435.85	434.62	430.62	419.69	415.19	416.19
BENT No. 3	434.77	434.81	434.68	434.65	433.53	429.53	418.90	414.40	415.40



ROW 1



ROW 2

PLAN OF MAIN REINFORCEMENT

NOTES:

WHEN POURING CAPBEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. IF THE CONTRACTOR ELECTS TO DRILL THE HOLES FOR THE ANCHOR BOLTS, THE REINFORCING STEEL SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE DRILLING. ANCHOR BOLT PROJECTION = 2 3/8" @ BENTS No. 1 & 3, & 6 1/2" @ BENT No. 2.

RISER BLOCKS TO BE POURED MONOLITHICALLY WITH CAPBEAM.

COLUMN STEEL TO EXTEND 3'-6" INTO CAPBEAM.

SEE DWG. M-130-33 FOR DETAILS OF ATTACHMENT TO EXIST. BENTS.

SEE DWG. M-130-32 FOR RISER BLOCK DETAILS, AND ANCHOR BOLT SPACING.

ESTIMATED QUANTITIES

ITEM	CLASS A CONCRETE (CY)	STEEL BAR REINFORCEMENT LBS.
BENT No. 1	287.3	30,786
BENT No. 2	284.6	30,261
BENT No. 3	281.1	29,948

NOTE: QUANTITIES GIVEN ARE FOR ENTIRE BENT, INCLUDING THE 5" CONC. LIFT AND REINFORCING STEEL @ EXISTING BENTS.

DESIGNED BY WAP DATE 5-83
DRAWN BY SRB DATE 5-83
SUPERVISED BY W.A.P. & J.M.B. DATE 5-83
CHECKED BY W.A.P. DATE 5-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENTS No. 1, 2, & 3
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION – 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clifton L. Lovell
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

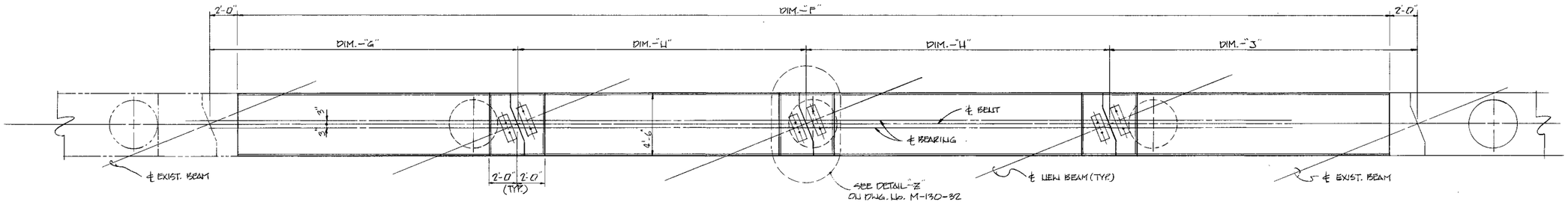
M-130-29

const. no. 19010-3124-44 (I)
const. no. 19010-3124-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

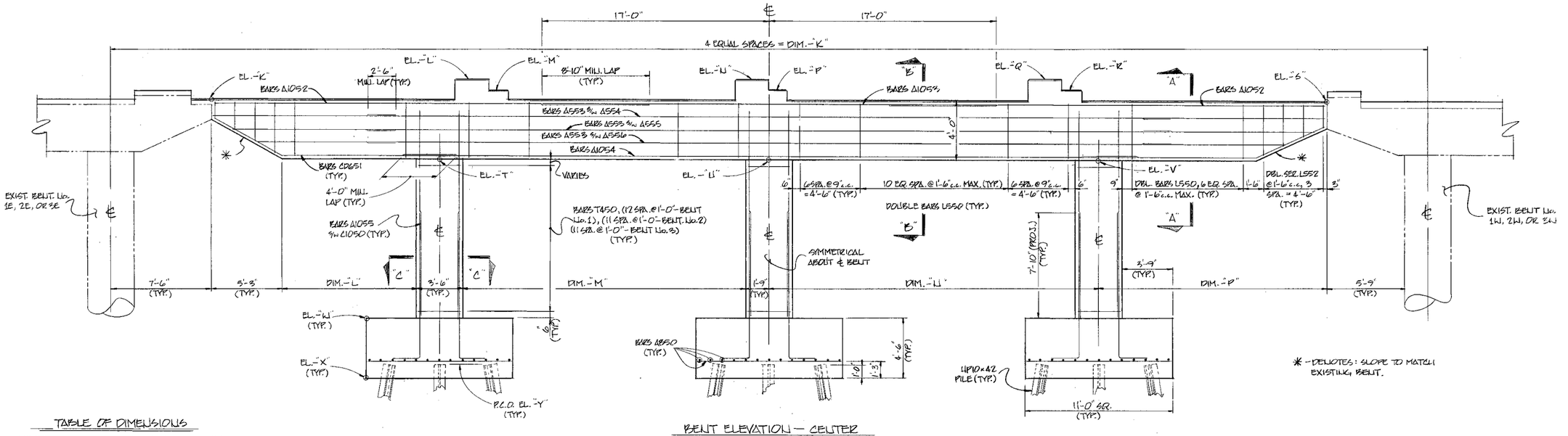
REVISIONS

NO	DATE	BY	BRIEF DISCRIPTION
1	2-19-86	JMB	CHANGED ELEVATION AT BRIDGE SEAT
2	2-26-86	HVB	El. "L" Bent No. 3
3	3-5-86	JMB	CHANGED ELEV. @ BRIDGE SEATS.



BELT PLAN — CENTER

NOTE: SEE DWG. No. M-130-9 FOR STEINGER SKEW ANGLES.



BENT ELEVATION — CENTER

(TYP. @ BENTS No. 1, 2, & 3 LOOKING FORWARD ON SURVEY)

* - DENOTES: SLOPE TO MATCH EXISTING BELT.

NOTE: SEE DWG. No. M-130-29 FOR BENT CONSTRUCTION NOTES.

TABLE OF DIMENSIONS

DIM.	BENT No. 1	BENT No. 2	BENT No. 3
"F"	83'-5 1/2"	81'-6 1/4"	79'-6 3/8"
"G"	22'-2 3/8"	19'-10 1/2"	20'-3 11/16"
"H"	21'-5 5/8"	21'-5 5/8"	21'-5 5/8"
"J"	22'-3 3/8"	22'-8 1/16"	20'-9 11/16"
"K"	98'-5 1/2"	96'-6 1/4"	94'-6 3/8"
"L"	10'-1 3/8"	9'-7 7/16"	9'-1 3/8"
"M"	21'-1 3/8"	20'-7 7/16"	20'-1 3/8"
"N"	24'-7 3/8"	24'-1 9/16"	23'-7 5/8"
P	17'-1 3/8"	16'-7 7/16"	16'-1 3/8"

TABLE OF ELEVATIONS 1 3

ELEV.	"K"	"L"	"M"	"N"	"P"	"Q"	"R"	"S"	"T"	"U"	"V"	"W"	"X"	"Y"
BENT No. 1	435.30	437.38	436.42	437.14	436.17	437.13	436.16	435.06	431.26	431.20	431.14	418.64	414.14	415.14
BENT No. 2	434.46	435.92	435.62	435.31	435.31	435.21	435.21	433.89	430.34	430.17	430.01	418.38	413.88	414.88
BENT No. 3	433.27	434.25	433.22	433.92	434.89	433.85	434.82	432.72	429.16	429.00	428.83	417.33	412.83	413.83

2

DESIGNED BY WAP DATE 5-83
DRAWN BY SDB DATE 5-83
SUPERVISED BY JLC & JMB DATE 5-83
CHECKED BY WAP DATE 5-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENTS No. 1, 2, & 3 CONTD.
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 2216+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Fowcett

APPROVED Lewis Evans

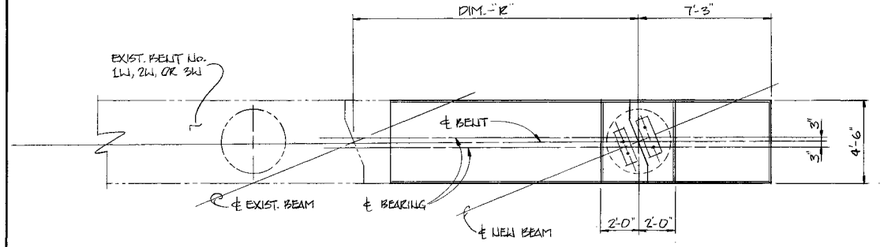
M-130-30

Const. no. 19010-3124-44 (I)
Const. no. 19010-3129-44 (IR)

PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1985	

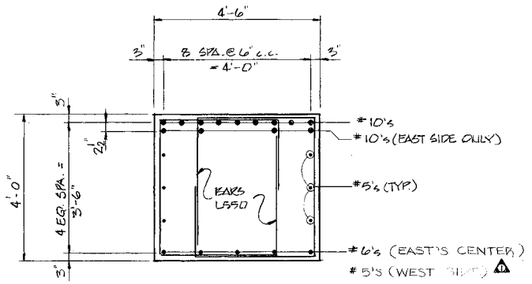
REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	2/19/86	J.V.	REV. BARS IN CAP BEAM; SHOWED SECTION "AA" @ ELEV. VIEW
2	2-19-86	J.M.B.	CHANGED ELEVATION AT BRIDGE SEAT
3	3-5-86	JMB	CHANGED ELEV. @ BRIDGE SEATS.

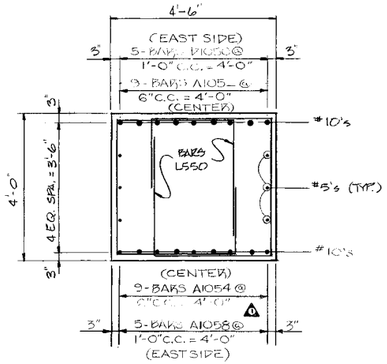


BELIT PLAN – WEST SIDE

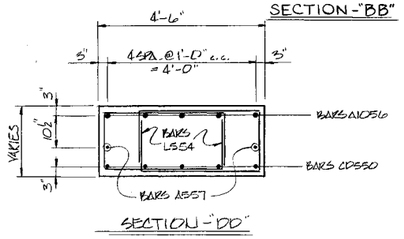
NOTE : SEE DWG. NO. M-130-9 FOR STRINGER SKEW ANGLES.



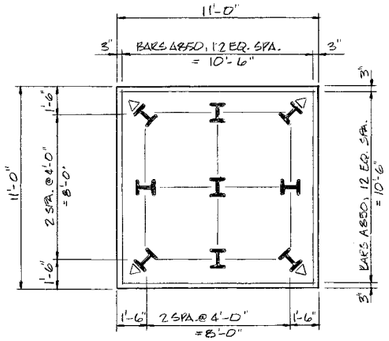
SECTION – "AA"



SECTION – "BB"

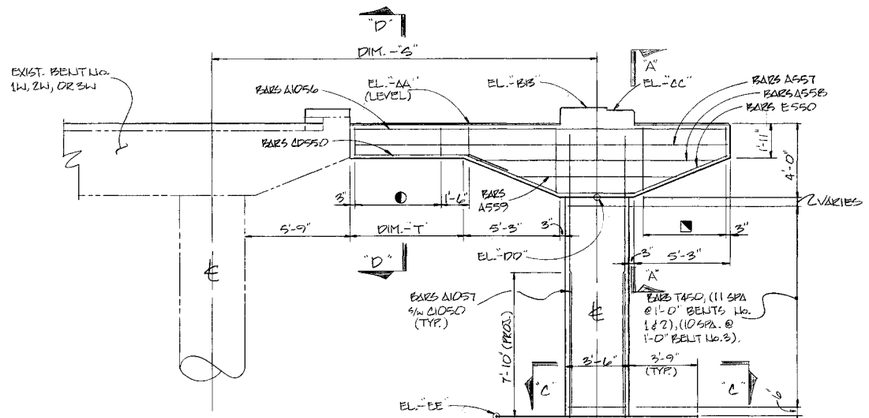


SECTION – "DD"

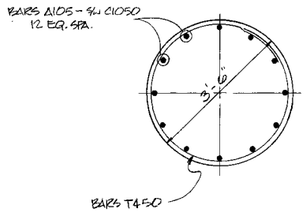


PLAN OF FOOTING

TYP. ALL BELITS
ALL PILES TO BE HP10×42
BATTER PILES 2:12 IN DIRECTION SHOWN



BELIT ELEVATION – WEST SIDE
(TYP. BELITS No. 1, 2, & 3, LOOKING FORWARD ON SURVEY)



SECTION – "CC"

◐ – DENOTES: DOUBLE BARS L554 4 EQ. SPA. @ 1'-6" c.c. (MAX.)

◪ – DENOTES: DOUBLE SERIES BARS L553, 3 SPA. @ 1'-6" c.c. = 4'-6" (TYP.)

TABLE OF DIMENSIONS

DIM.	"R"	"S"	"T"
BELIT No. 1	15'-11⅛"	21'-5⅛"	6'-8⅛"
BELIT No. 2	13'-9⅛"	19'-3⅛"	4'-6⅛"
BELIT No. 3	14'-10 7/16"	20'-4⅜"	5'-7⅜"

TABLE OF ELEVATIONS ② ③

ELEV.	"AA"	"BB"	"CC"	"DD"	"EE"	"FF"	"GG"
BELIT No. 1	434.82	435.88	435.81	430.82	418.90	414.40	415.40
BELIT No. 2	433.64	434.82	434.82	429.64	417.64	413.14	414.14
BELIT No. 3	432.49	433.49	433.54	428.49	417.83	413.33	414.33

DESIGNED BY WAP DATE 5-83
DRAWN BY SDB DATE 5-83
SUPERVISED BY JJC & JMB DATE 5-83
CHECKED BY WAP DATE 5-83

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BELITS No. 1, 2, & 3 CONTD.
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION – 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clifton L Lovell

APPROVED Lewis Evans

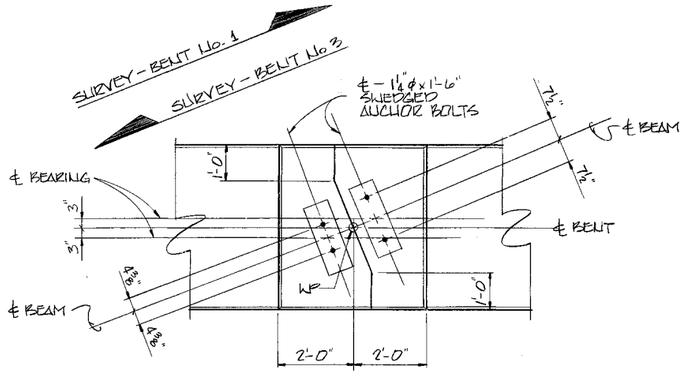
M-130-31

const. no. 19010-3124-44 (I)
const. no. 19010-3129-44 (IR)

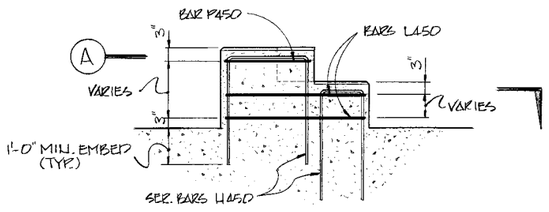
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72) 83	1985	

REVISIONS

NO.	DATE	BY	BRIEF DISCRIPTION
1	2-19-86		REVISED ELASTOMERIC PADS

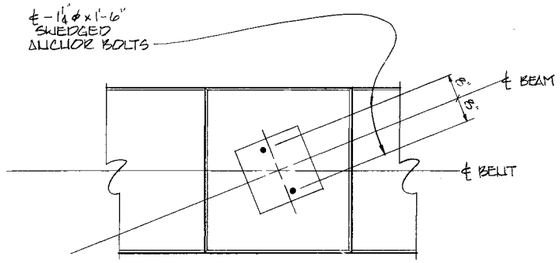


1 PLAN - RISERBLOCKS @ BENT #1 & 3

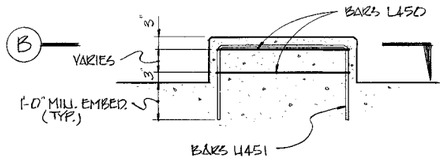


ELEVATION - BENT #1 & 3

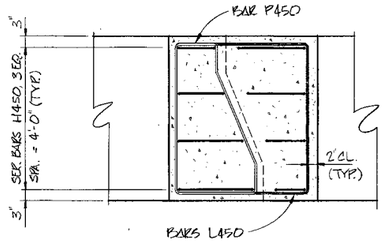
NOTE - OMIT BARS P450 @ RISERBLOCKS FOR FASCIA GIRDERS.



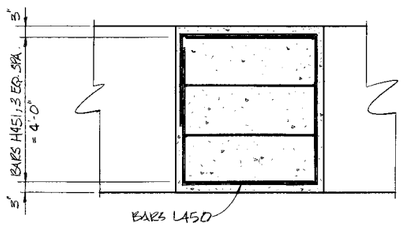
1 PLAN - RISERBLOCKS @ BENT #2



ELEVATION - BENT #2



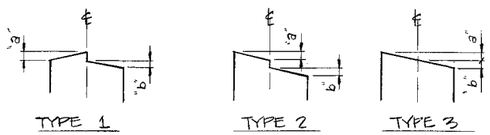
SECTION - "A"



SECTION - "B"

NOTE: WHEN POURING CAPBEAM PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. IF THE CONTRACTOR ELECTS TO DRILL THE HOLES FOR THE ANCHOR BOLTS, THE REINFORCING STEEL SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE DRILLING. ANCHOR BOLT PROJECTION TO BE 2⅜" @ BENTS No. 1 & 3 AND 0" @ BENT No. 2.

SURVEY



RISERBLOCK SLOPE DETAILS

BENT/BEAM		TYPE	DIMENSION "a"	DIMENSION "b"
BENT No. 1	A1, B1	1	1/16"	1/8"
	A2, B2	1	1/16"	1/8"
	A3, B3	2	1/8"	1/4"
	A4, B4	2	1/8"	1/4"
	A5, B5	2	1/8"	5/16"
	A6, B6	2	1/4"	5/16"
BENT No. 2	B1	3	1/8"	1/8"
	B2	3	1/8"	3/16"
	B3	3	1/4"	1/4"
	B4	3	1/4"	1/4"
	B5	3	5/16"	1/4"
	B6	3	5/16"	1/4"
BENT No. 3	B1, C1	2	1/8"	5/16"
	B2, C2	2	3/16"	5/16"
	B3, C3	2	1/4"	5/16"
	B4, C4	2	5/16"	5/16"
	B5, C5	2	1/4"	5/16"
	B6, C6	2	1/4"	1/4"

NOTE: RISERBLOCKS TO BE POURED MONOLITHICALLY WITH CAPBEAM.

NOTE: RISERBLOCK BEARING PAD SURFACES TO CONFORM TO BOTTOM OF BEAM GRADE.

NOTE: RISERBLOCK SLOPE DIMENSIONS ARE GIVEN AT RT. ANGLES TO ℄ BEAMS.

DESIGNED BY WAP DATE 5-85
DRAWN BY SDB DATE 5-85
SUPERVISED BY W.C.& J.M.B. DATE 5-85
CHECKED BY WAP DATE 5-85

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENT DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT Clellon L Foveall

APPROVED Lewis Evans

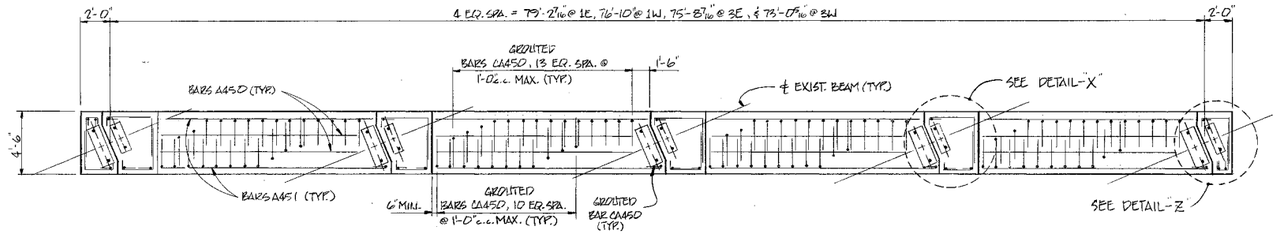
M-130-32

Const. No. 19010-3124-44(1)
Const. No. 19010-3169-44(IR)

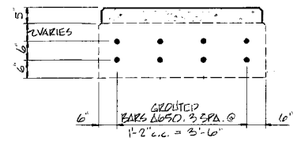
PROJECT NO.	YEAR	SHEET NO.
I-IR-65-3(72)83	1955	

REVISIONS

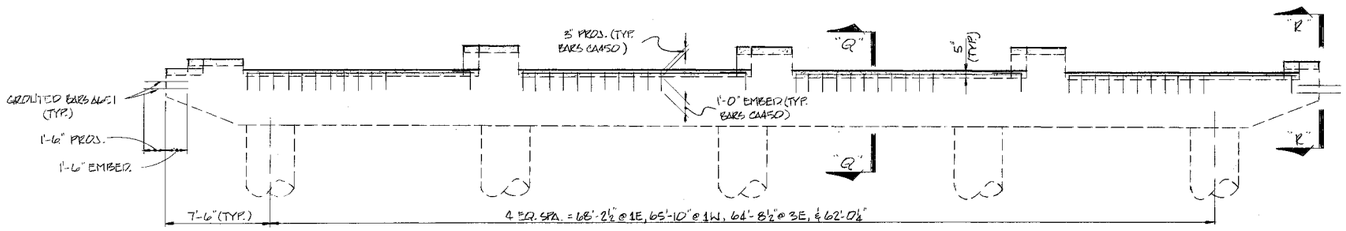
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-19-86	J L V	REVISED ELASTOMERIC PADS



1 PLAN - EXISTING BENTS 1E, 1W, 3E, & 3W

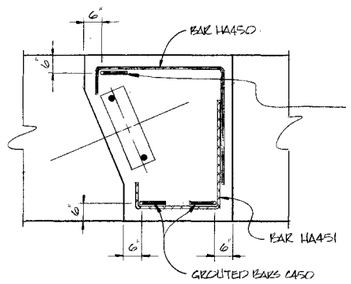


SECTION-"RR"

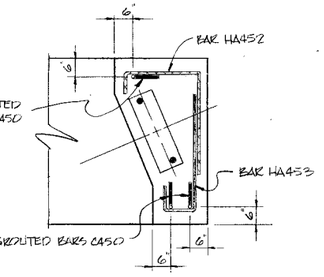


ELEVATION - EXISTING BENTS 1E, 1W, 3E, & 3W

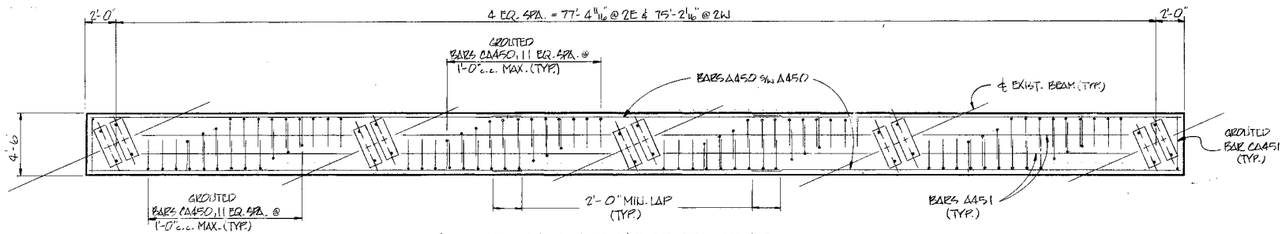
(LOOKING BACK ON SURVEY - BENTS 1E & 1W
LOOKING FORWARD ON SURVEY - BENTS 3E & 3W)



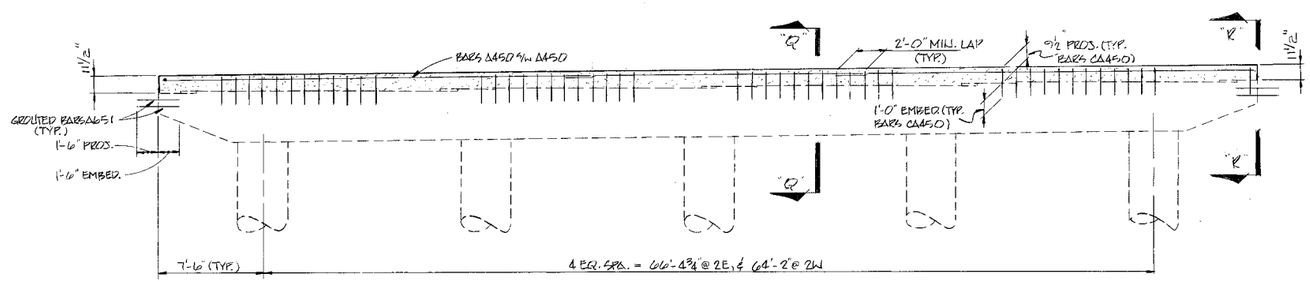
1 DETAIL-"X"



1 DETAIL-"Z"

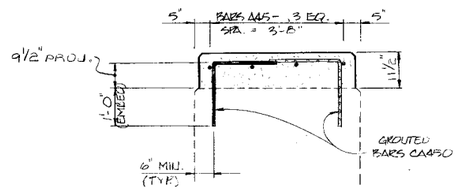


1 PLAN - EXISTING BENTS 2E & 2W



ELEVATION - EXISTING BENTS 2E & 2W

(LOOKING FORWARD ON SURVEY)



SECTION-"QQ"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

EXISTING BENT DETAILS
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY KWP DATE 5-83
DRAWN BY SDP DATE 8-83
SUPERVISED BY W & E MMS DATE 5-84
CHECKED BY KWP DATE 8-7-85

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

M-130-33

BILL OF STEEL

Const. No. 19010-3124-44 (I)
Const. No. 19010-3124-44 (IR)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-IR-65-3(72)83	19 85		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A400E	SLAB	4	564					5'-0"
A401E	SLAB	4	116					12'-0"
A402E	SLAB	4	88					14'-0"
SER.								
A500E	SLAB	5	1	LENGTH VARIES FROM 3'-1" TO 30'-0" IN INC. OF 3 5/16" (90 BARS)				1488'-9"
A501E	SLAB	5	218					30'-2"
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-2" TO 29'-11" IN INC. OF 3 1/16" (88 BARS)				1455'-8"
A502E								
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-1" TO 30'-1" IN INC. OF 3 1/16" (86 BARS)				1426'-2"
A503E								
A504E	SLAB	5	211					30'-4"
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-4" TO 29'-8" IN INC. OF 3 1/16" (84 BARS)				1386'-0"
A505E								
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-3" TO 29'-10" IN INC. OF 3 3/4" (80 BARS)				1422'-7"
A506E								
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-3" TO 29'-0" IN INC. OF 3 5/16" (82 BARS)				1322'-3"
A507E								
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-3" TO 30'-2" IN INC. OF 3 5/16" (83 BARS)				1386'-10"
A508E								
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-11" TO 29'-11" IN INC. OF 4" (79 BARS)				1336'-5"
A509E								
SER.	SLAB	5	1	LENGTH VARIES FROM 2'-11" TO 29'-10" IN INC. OF 3 5/16" (83 BARS)				1359'-2"
A510E								
A511E	SLAB	5	6					30'-0"

SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SER.	SLAB	5	1	LENGTH VARIES FROM 2'-10" TO 29'-10" IN INC. OF 4" (82 BARS)				1339'-4"
A512E								
SER.	SLAB	5	1	LENGTH VARIES FROM 2'-11" TO 28'-0" IN INC. OF 4 1/16" (75 BARS)				1159'-5"
A513E								
A514E	SLAB	5	5					28'-2"
SER.	SLAB	5	1	LENGTH VARIES FROM 3'-1" TO 27'-10" IN INC. OF 4 3/16" (72 BARS)				1113'-0"
A515E								
A516E	SLAB	5	894					30'-0"
A517E	SLAB	5	25					25'-0"
A518E	SLAB	5	40					23'-0"
A519E	SLAB	5	14					20'-6"
A520E	SLAB	5	25					9'-9"
A521E	SLAB	5	40					29'-10"
A522E	SLAB	5	14					24'-10"
A523E	SLAB	5	25					10'-0"
A524E	SLAB	5	40					8'-0"
A525E	SLAB	5	14					6'-0"
A527E	SLAB	5	344					60'-0"
SER.	SLAB	5	1	LENGTH VARIES FROM 12'-0" TO 19'-1" IN INC. OF 1" (86 BARS)				1336'-7"
A528E								
SER.	SLAB	5	1	LENGTH VARIES FROM 15'-3" TO 21'-11" IN INC. OF 1 9/16" (86 BARS)				1598'-2"
A529E								
A530E	SLAB	5	4					6'-6"
A531E	SLAB	5	30					60'-0"
A532E	SLAB	5	6					32'-0"
SER.	SLAB	5	1	"A" VARIES FROM 18'-4" TO 23'-2" IN INC. OF 1 1/16" (86 BARS)				1856'-2"
C500E								
SER.	SLAB	5	1	"A" VARIES FROM 3'-8" TO 8'-1" IN INC. OF 5/16" (86 BARS)				576'-11"
C501E								

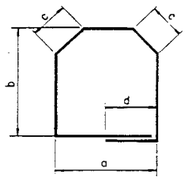
SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
CA500E	SLAB	5	4	6'-6"	2'-0"			8'-6"
CA501E	SLAB	5	4	2'-2"	2'-0"			4'-2"
GA500E	SLAB	5	132	11"	8'-8"	11"		10'-10"
GA501E	SLAB	5	60	1'-1 1/2"	8"	1'-1 1/2"		3'-4"
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-7" TO 24'-0" IN INC. OF 3 5/16" (73 BARS)				970'-3"
A600E								
A601E	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 21'-6" IN INC. OF 3 5/16" (65 BARS)				780'-0"
A602E	SLAB	6	26					24'-7"
A603E	SLAB	6	34					21'-8"
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-3" TO 24'-4" IN INC. OF 3 1/16" (63 BARS)				931'-10"
A604E								
A605E	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 21'-6" IN INC. OF 3 1/16" (65 BARS)				756'-0"
SER.	SLAB	6	1	LENGTH VARIES FROM 5'-3" TO 19'-5" IN INC. OF 3 1/16" (47 BARS)				579'-8"
A606E								
A608E	SLAB	6	42					19'-9"
A609E	SLAB	6	51					17'-8"
SER.	SLAB	6	1	LENGTH VARIES FROM 5'-8" TO 16'-5" IN INC. OF 3 5/16" (44 BARS)				548'-4"
A610E								
A611E	SLAB	6	1	LENGTH VARIES FROM 3'-6" TO 18'-2" IN INC. OF 3 3/4" (45 BARS)				509'-2"

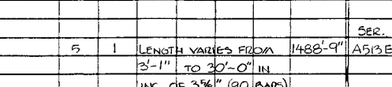
SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SER.	SLAB	6	1	LENGTH VARIES FROM 6'-5" TO 19'-6" IN INC. OF 3 3/4" (43 BARS)				557'-3"
A612E								
SER.	SLAB	6	1	LENGTH VARIES FROM 3'-8" TO 17'-9" IN INC. OF 3 3/4" (46 BARS)				492'-7"
A613E								
A614E	SLAB	6	41					15'-9"
A615E	SLAB	6	50					17'-8"
SER.	SLAB	6	1	LENGTH VARIES FROM 5'-5" TO 19'-2" IN INC. OF 3 3/4" (45 BARS)				553'-2"
A616E								
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-8" TO 16'-5" IN INC. OF 3 3/4" (45 BARS)				429'-4"
A617E								
SER.	SLAB	6	1	LENGTH VARIES FROM 5'-7" TO 12'-9" IN INC. OF 3 15/16" (22 BARS)				196'-2"
A618E								
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-10" TO 9'-6" IN INC. OF 3 15/16" (22 BARS)				135'-8"
A619E								
A620E	SLAB	6	62					12'-7"
A621E	SLAB	6	71					9'-8"
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 12'-3" IN INC. OF 3 1/16" (31 BARS)				228'-8"
A622E								
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 9'-8" IN INC. OF 3 5/16" (73 BARS)				139'-11"
A623E								
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-7" TO 24'-5" IN INC. OF 3 3/4" (71 BARS)				958'-6"
A624E								
SER.	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 21'-8" IN INC. OF 3 3/4" (62 BARS)				749'-2"
A625E								

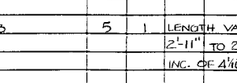
BARS X



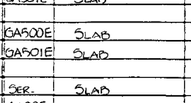
BARS M



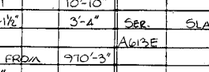
BARS E



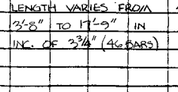
BARS H



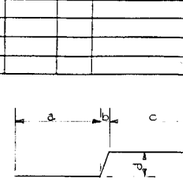
BARS CB



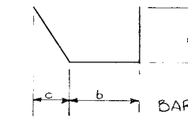
BARS YB



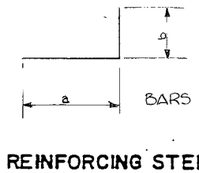
BARS Z



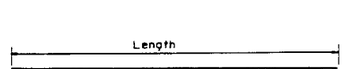
BARS J



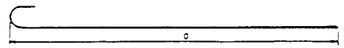
BARS GA



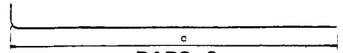
BARS CA



BARS A

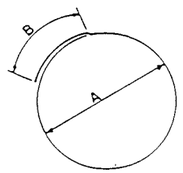


BARS B

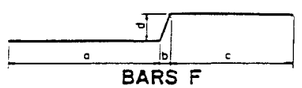


BARS C

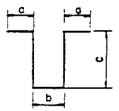
BARS D



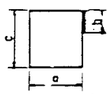
BARS T



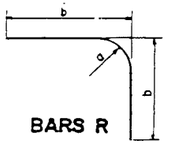
BARS F



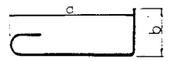
BARS K



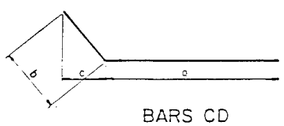
BARS L



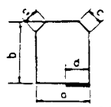
BARS R



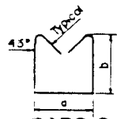
BARS YA



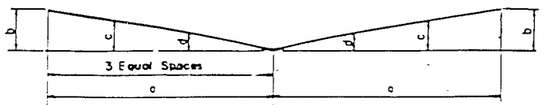
BARS CD



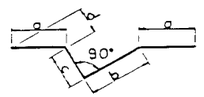
BARS M



BARS S



BARS V



BARS JX

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

NOTE Dimensions shown on this sheet are outside to outside of bar
Standard C R S. I. Hook Details Shall Apply, Except As Noted.

DESIGNED BY W.A.P. DATE May 1983
DRAWN BY DATE June 1983
SUPERVISED BY J.L.C. & J.M.B. DATE June 1983
CHECKED BY DATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

CORRECT Edelen & Foreaker
ENGINEER OF STRUCTURES
APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

M-130-34

5-0-2

BILL OF STEEL

CONST. No. 19010-3124-44 (1)
CONST. No 19010-3129-44(IR)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-IR-65-3(72)83	1985		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6-16-86	JMB	ADDED BARS A50-E & N50-E
			TO BILL OF STEEL

SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A606E	SLAB	6	230					24'-7"
A607E	SLAB	6	240					21'-8"
SER. A608E	SLAB	6	1	LENGTH VARIES FROM 5'-3" TO 23'-8" IN INC. OF 3 3/16" (59 BARS)				853'-1"
SER. A609E	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 20'-11" IN INC. OF 3 3/16" (59 BARS)				600'-10"
SER. A610E	SLAB	6	1	LENGTH VARIES FROM 15'-3" TO 19'-5" IN INC. OF 7 3/8" (45 BARS)				555'-0"
A611E	SLAB	6	210					15'-0"
A613E	SLAB	6	54					25'-0"
A614E	SLAB	6	252					60'-0"
A615E	SLAB	6	252					22'-9"
F600E	SLAB	6	429	2'-9"	2'-0"	2'-9"	3"	7'-6"
SER. A616E	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 16'-8" IN INC. OF 3 3/16" (45 BARS)				431'-3"
A617E	SLAB	6	240					19'-9"
A618E	SLAB	6	243					17'-10"
SER. A619E	SLAB	6	1	LENGTH VARIES FROM 6'-3" TO 19'-5" IN INC. OF 3 3/16" (41 BARS)				526'-2"
SER. A620E	SLAB	6	1	LENGTH VARIES FROM 3'-8" TO 17'-9" IN INC. OF 3 3/16" (44 BARS)				471'-2"
SER. A621E	SLAB	6	1	LENGTH VARIES FROM 6'-5" TO 19'-4" IN INC. OF 3/16" (41 BARS)				527'-11"
SER. A622E	SLAB	6	1	LENGTH VARIES FROM 3'-7" TO 17'-6" IN INC. OF 3/16" (44 BARS)				463'-10"
A623E	SLAB	6	237					19'-9"
A623E	SLAB	6	243					17'-10"
SER. A624E	SLAB	6	1	LENGTH VARIES FROM 4'-11" TO 19'-5" IN INC. OF 3 15/16" (45 BARS)				547'-6"

SUPERSTRUCTURE

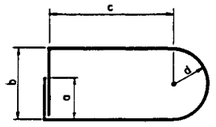
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SER. A625E	SLAB	6	1	LENGTH VARIES FROM 2'-2" TO 16'-8" IN INC. OF 3 3/16" (45 BARS)				423'-9"
SER. A626E	SLAB	6	1	LENGTH VARIES FROM 5'-3" TO 12'-3" IN INC. OF 4" (22 BARS)				192'-6"
SER. A627E	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 9'-6" IN INC. OF 4" (22 BARS)				132'-0"
A628E	SLAB	6	254					12'-7"
A629E	SLAB	6	262					9'-8"
SER. A630E	SLAB	6	1	LENGTH VARIES FROM 2'-9" TO 17'-1" IN INC. OF 4" (29 BARS)				215'-1"
SER. A631E	SLAB	6	1	LENGTH VARIES FROM 2'-9" TO 9'-9" IN INC. OF 4" (21 BARS)				131'-3"
SER. A632E	SLAB	6	1	LENGTH VARIES FROM 2'-9" TO 24'-4" IN INC. OF 3/8" (68 BARS)				920-10
SER. A633E	SLAB	6	1	LENGTH VARIES FROM 2'-9" TO 21'-6" IN INC. OF 3/16" (59 BARS)				715'-5"
A634E	SLAB	6	10					24'-7"
A635E	SLAB	6	20					21'-8"
SER. A636E	SLAB	6	1	LENGTH VARIES FROM 6'-3" TO 24'-7" IN INC. OF 3 9/16" (60 BARS)				895'-0"
SER. A637E	SLAB	6	1	LENGTH VARIES FROM 2'-6" TO 21'-10" IN INC. OF 3 9/16" (60 BARS)				730'-0"
SER. A638E	SLAB	6	1	LENGTH VARIES FROM 5'-4" TO 19'-4" IN INC. OF 4" (43 BARS)				530'-4"

SUPERSTRUCTURE

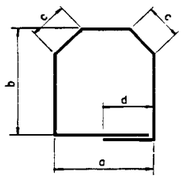
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SER. A639E	SLAB	6	1	LENGTH VARIES FROM 3'-7" TO 17'-6" IN INC. OF 4" (43 BARS)				455'-1"
SER. A640E	SLAB	6	1	LENGTH VARIES FROM 2'-7" TO 17'-7" IN INC. OF 4" (43 BARS)				506'-8"
SER. A641E	SLAB	6	1	LENGTH VARIES FROM 3'-6" TO 17'-6" IN INC. OF 4" (43 BARS)				451'-6"
A642E	SLAB	6	262					9'-8"
SER. A643E	SLAB	6	1	LENGTH VARIES FROM 6'-1" TO 19'-1" IN INC. OF 4" (40 BARS)				503'-4"
A644E	SLAB	6	1	LENGTH VARIES FROM 3'-5" TO 17'-5" IN INC. OF 4" (43 BARS)				447'-11"
A645E	SLAB	6	26					19'-7"
A646E	SLAB	6	35					17'-10"
SER. A647E	SLAB	6	1	LENGTH VARIES FROM 5'-4" TO 19'-3" IN INC. OF 4 1/16" (42 BARS)				516'-3"
SER. A648E	SLAB	6	1	LENGTH VARIES FROM 3'-7" TO 17'-6" IN INC. OF 4 1/16" (42 BARS)				442'-9"
SER. A649E	SLAB	6	1	LENGTH VARIES FROM 5'-5" TO 18'-5" IN INC. OF 4 3/16" (21 BARS)				167'-3"
SER. A650E	SLAB	6	1	LENGTH VARIES FROM 2'-8" TO 9'-8" IN INC. OF 4 3/16" (21 BARS)				129'-6"
A651E	SLAB	6	46					5'-10"
A652E	SLAB	6	54					12'-7"

SUPERSTRUCTURE

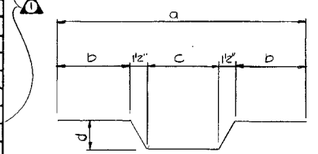
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SER. A670E	SLAB	6	1	LENGTH VARIES FROM 2'-7" TO 17'-4" IN INC. OF 4 3/16" (29 BARS)				216'-3"
SER. A671E	SLAB	6	1	LENGTH VARIES FROM 2'-7" TO 9'-10" IN INC. OF 4 1/8" (22 BARS)				136'-7"
A672E	SLAB	5	8					22'-0"
A673E	SLAB	5	48					60'-0"
A674E	SLAB	5	16					47'-0"
A675E	SLAB	5	8					43'-6"
A676E	SLAB	5	8					17'-0"
A677E	SLAB	5	16					45'-0"
A678E	SLAB	5	8					48'-6"
N501E	SLAB	5	120	21'-3"	2'-2"	16'-8"	11"	22'-9"
N502E	SLAB	5	120	20'-7"	2'-2"	16'-0"	11"	22'-1"



BARS X



BARS M

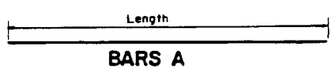


BARS N

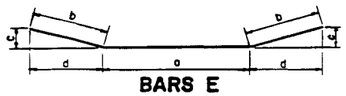
REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

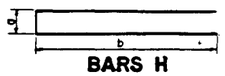
NOTE Dimensions shown on this sheet are outside to outside of bar Standard C R S. I. Hook Details Shall Apply, Except As Noted.



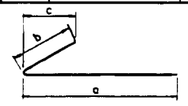
BARS A



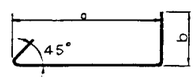
BARS E



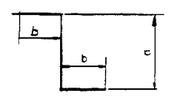
BARS H



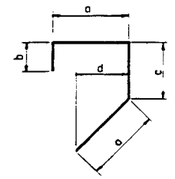
BARS CB



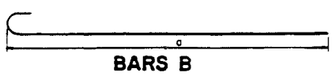
BARS YB



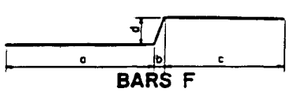
BARS Z



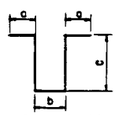
BARS J



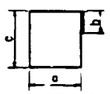
BARS B



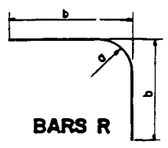
BARS F



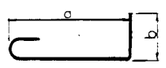
BARS K



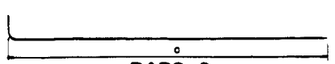
BARS L



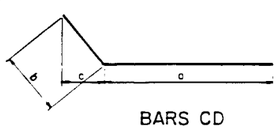
BARS R



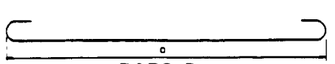
BARS YA



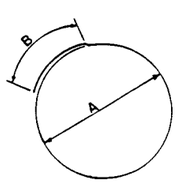
BARS C



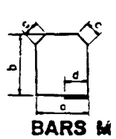
BARS CD



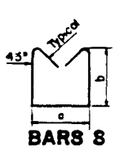
BARS D



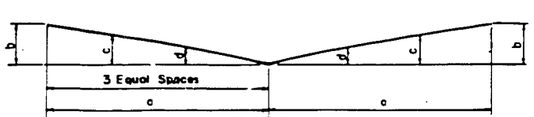
BARS T



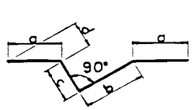
BARS M



BARS S



BARS V



BARS JX

DESIGNED BY W.A.P. DATE May 1983
DRAWN BY DATE June 1983
SUPERVISED BY J.L.C. & J.M.B. DATE June 1983
CHECKED BY DATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION 226+26.91
DAVIDSON COUNTY
1985

CORRECT Charles L Foveall
ENGINEER OF STRUCTURES
APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

M-130-35

5-0-7

BILL OF STEEL

const. no. 19010-3124-44 (I)
const. no. 19010-3129-44 (IR)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-IR-65-3(72)83	1985		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SUPERSTRUCTURE (CONT.)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A400	BACKWALL	4	10					76'-6"
A401	BACKWALL	4	1					21'-10"
A402	WING	4	1					8'-8"
A403	WING	4	4					12'-5"
A404	WING	4	9					5'-2"
A405	WING	4	4					3'-11"
A406	WING	4	2					9'-11"
A407	BACKWALL	4	18					47'-0"
A408	BACKWALL	4	11					60'-0"
A409	WING	4	1					12'-2"
A410	WING	4	12					4'-7"
A411	WING	4	2					11'-2"
A412	BACKWALL	4	8					56'-6"
A413	BACKWALL	4	2					55'-3"
A414	BACKWALL	4	1					52'-8"
A415	WING	4	10					5'-3"
A416	WING	4	3					4'-2"
A417	WING	4	2					11'-0"
A418	WING	4	4					13'-4"
A419	WING	4	1					9'-9"
A420	BACKWALL	4	11					42'-10"
A421	BACKWALL	4	11					43'-2"
A422	BACKWALL	4	10					22'-9"
A423	BACKWALL	4	1					23'-3"
A424	WING	4	2					13'-5"
A425	WING	4	1					14'-4"
A426	WING	4	14					5'-0"
A500	BACKWALL	5	241					4'-0"
A501	BACKWALL	5	33					3'-0"
SERIES								
A502	BACKWALL	5	2	BARS VARY FROM 3'-7"				
				TO 4'-6", INCR. = 3"				(61 BARS) 246'-6"
A503	BACKWALL	5	112					4'-0"
A504	BACKWALL	5	2					3'-1"
A505	BACKWALL	5	174					3'-11"
A506	BACKWALL	5	46					3'-10"
A600	WING	6	4					12'-5"
A601	WING	6	9					5'-2"
A602	WING	6	4					3'-11"
A603	WING	6	2					11'-2"
A604	WING	6	12					4'-7"
A605	WING	6	10					5'-3"
A606	WING	6	3					4'-2"
A607	WING	6	2					11'-0"

SUPERSTRUCTURE (CONT.)

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A608	WING	6	4					13'-4"
A609	WING	6	14					5'-0"
A610	WING	6	2					13'-5"
F400	BACKWALL	4	20	2'-9"	1'-0"	2'-5"	3"	7'-6"
H500	BACKWALL	5	334	1'-8"	6"			2'-7"
CD400	WING	4	4	11'-10"	2'-0"	1'-10"		13'-10"
CD401	WING	4	8	13'-7"	2'-0"	1'-9½"		15'-8"
CD600	WING	6	4	11'-9"	2'-0"	1'-10"		13'-9"
CD601	WING	6	8	13'-7"	2'-0"	1'-9½"		15'-7"
A507	WING	5	1					5'-0"
A508	WING	5	1					3'-9"
A509	WING	5	1					4'-7"
A510	WING	5	1					3'-4"
GA400	WING	4	8	1'-0"	8"	5"		2'-9"
GA401	WING	4	8	1'-0"	2'-1"	5"		4'-2"
CA400	WING	4	4	5'-0"	2'-0"			7'-0"
CA401	WING	4	4	5'-0"	1'-10"			6'-10"

ABUTMENT NO. 1

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A440	ABUTMENT BEAM	4	4					8'-0"
A441	ABUTMENT BEAM	4	4					21'-3"
A442	ABUTMENT BEAM	4	8					19'-2"
A443	ABUTMENT BEAM	4	4					15'-0"
A444	ABUTMENT BEAM	4	4					11'-0"
A445	ABUTMENT BEAM	4	4					21'-11"
A446	ABUTMENT BEAM	4	8					19'-10"
A447	ABUTMENT BEAM	4	4					15'-8"
A540	ABUTMENT BEAM	5	9					18'-2"
A541	WING BEAM	5	7					18'-6"
A542	ABUTMENT BEAM	5	64					3'-0"
A543	ABUTMENT BEAM	5	9					60'-0"
A544	ABUTMENT BEAM	5	9					17'-7"
A545	WING BEAM	5	7					19'-1"
A546	ABUTMENT BEAM	5	9					40'-0"
SER. A547	ABUTMENT BEAM	5	1	LENGTH VARIES FROM 15'-4" TO 25'-5½" IN INC. OF 1'-8¼" (7 BARS)				142'-10"
A548	ABUTMENT BEAM	5	1					25'-6"
A549	ABUTMENT BEAM	5	1					15'-4"
A740	WING BEAM	7	9					18'-6"
A741	WING BEAM	7	9					19'-1"
A840	ABUTMENT BEAM	8	13					18'-2"
A841	ABUTMENT BEAM	8	30					4'-0"
A842	ABUTMENT BEAM	8	13					60'-0"
A843	ABUTMENT BEAM	8	13					19'-11"
A844	ABUTMENT BEAM	8	13					40'-0"
SER. A845	ABUTMENT BEAM	8	1	LENGTH VARIES FROM 18'-1" TO 28'-2½" IN INC. OF 1'-8¼" (7 BARS)				162'-1"
SER. A846	ABUTMENT BEAM	8	1	LENGTH VARIES FROM 18'-1" TO 28'-2½" IN INC. OF 2'-0¼" (6 BARS)				138'-10"

ABUTMENT NO. 1

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
CA440	ABUTMENT BEAM	4	192	2'-0"	1'-9"			3'-3"
H440	ABUTMENT BEAM	4	20	2'-0"	2'-6"			6'-11"
H540	ABUTMENT BEAM	5	6	3'-1"	2'-3"			8'-0"
H640	WING BEAM	6	25	8"	2'-10"			6'-3"
H840	ABUTMENT BEAM	8	101	8"	3'-4"			7'-3"
H841	ABUTMENT BEAM	8	61	8"	3'-10"			8'-3"
L440	ABUTMENT BEAM	4	10	3'-2"	1'-0"	3'-1"		13'-4"
L540	ABUTMENT BEAM	5	144	4'-2"	1'-0"	3'-7"		16'-4"
L541	WING BEAM	5	25	2'-2"	1'-0"	3'-7"		12'-4"

ABUTMENT NO. 2

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A440	ABUTMENT BEAM	4	1					7'-0"
A441	ABUTMENT BEAM	4	1					5'-6"
A442	ABUTMENT BEAM	4	1					2'-9"
A443	ABUTMENT BEAM	4	1					1'-6"
A444	ABUTMENT BEAM	4	1					5'-2"
A445	ABUTMENT BEAM	4	1					7'-3"
A446	ABUTMENT BEAM	4	1					9'-7"
A447	ABUTMENT BEAM	4	1					11'-2"
A448	ABUTMENT BEAM	4	8					15'-0"
A449	ABUTMENT BEAM	4	1					10'-0"
A450	ABUTMENT BEAM	4	1					8'-2"
A451	ABUTMENT BEAM	4	1					5'-10"
A452	ABUTMENT BEAM	4	1					4'-2"
A453	ABUTMENT BEAM	4	1					3'-0"
A454	ABUTMENT BEAM	4	1					4'-6"
A455	ABUTMENT BEAM	4	1					6'-7"
A456	ABUTMENT BEAM	4	1					8'-0"
A457	ABUTMENT BEAM	4	1					9'-3"
A458	ABUTMENT BEAM	4	1					8'-1"
A459	ABUTMENT BEAM	4	1					6'-3"
A460	ABUTMENT BEAM	4	1					4'-5"
A461	ABUTMENT BEAM	4	1					3'-0"
A462	ABUTMENT BEAM	4	1					4'-10"
A463	ABUTMENT BEAM	4	1					6'-8"
A464	ABUTMENT BEAM	4	1					8'-5"
A465	ABUTMENT BEAM	4	8					13'-6"
A466	ABUTMENT BEAM	4	1					10'-0"

BARS M

BARS GA

BARS X

BARS CA

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

NOTE Dimensions shown on this sheet are outside to outside of bar Standard C R S. I. Hook Details Shall Apply, Except As Noted.

BARS A

BARS E

BARS H

BARS CB

BARS YB

BARS Z

BARS J

BARS B

BARS F

BARS K

BARS L

BARS R

BARS YA

BARS C

BARS D

BARS T

BARS M

BARS S

BARS V

BARS CD

BARS JX

DESIGNED BY W.A.P. DATE MAY 1983
DRAWN BY J.M.B. DATE JUNE 1983
SUPERVISED BY V.L.C. & S.D.B. & T.W. DATE JUNE 1983
CHECKED BY _____ DATE _____

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

CORRECT Edsellon L Forseall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-130-36

5-0-2

BILL OF STEEL

Const. No. 19010-3124-44 (1)
Const. No. 19010-3129-44 (IR)

FED. ROAD DEPT. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-IR-65-3(72)83	19 85		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2/19/86	J.V.	REV. BAR LENGTH & NO. REQ'D.

ABUTMENT NO. 2

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A467	ABUTMENT BEAM	4	1					7'-11"
A468	ABUTMENT BEAM	4	1					5'-11"
A469	ABUTMENT BEAM	4	1					4'-0"
A470	ABUTMENT BEAM	4	1					2'-7"
A471	ABUTMENT BEAM	4	1					4'-6"
A472	ABUTMENT BEAM	4	1					6'-8"
A473	ABUTMENT BEAM	4	1					8'-4"
A540	ABUTMENT BEAM	5	9					46'-7"
A541	WING BEAM	5	8					13'-4"
A542	ABUTMENT BEAM	5	9					40'-0"
A543	ABUTMENT BEAM	5	9					40'-5"
SER. A544	ABUTMENT BEAM	5	1	LENGTH VARIES FROM 17'-0" TO 25'-6" IN INC. OF 1'-5" (7 BARS)				148'-9"
A545	ABUTMENT BEAM	5	1					17'-0"
A546	ABUTMENT BEAM	5	1					25'-6"
A547	WING BEAM	5	8					20'-4"
A548	ABUTMENT BEAM	5	62					3'-0"
A740	WING BEAM	7	9					13'-4"
A741	WING BEAM	7	9					20'-4"
A840	ABUTMENT BEAM	8	13					46'-7"
A841	ABUTMENT BEAM	8	13					40'-0"
A842	ABUTMENT BEAM	8	13					49'-2"
SER. A843	ABUTMENT BEAM	8	1	LENGTH VARIES FROM 17'-0" TO 25'-6" IN INC. OF 1'-5" (7 BARS)				148'-9"
SER. A844	ABUTMENT BEAM	8	1	LENGTH VARIES FROM 17'-0" TO 25'-6" IN INC. OF 1'-8 3/8" (6 BARS)				127'-6"
A845	ABUTMENT BEAM	8	30					3'-6"
CA440	ABUTMENT BEAM	4	208	1'-6"	1'-3"			2'-9"
H440	ABUTMENT BEAM	4	24	3'-1"	2'-6"			8'-0"

ABUTMENT NO. 2

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
H640	WING BEAM	6	27	8"	2'-10"			6'-3"
H840	ABUTMENT BEAM	8	147	8"	3'-4"			7'-3"
L440	ABUTMENT BEAM	4	10	3'-2"	1'-0"	3'-1"		13'-4"
L540	WING BEAM	5	28	2'-2"	1'-0"	3'-7"		12'-4"
L541	ABUTMENT BEAM	5	129	4'-2"	1'-0"	3'-7"		16'-4"

BENT NO. 1

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A450	CAPBEAM	4	24					13'-9"
A451	CAPBEAM	4	12					16'-0"
A550	CAPBEAM	5	2					46'-7"
A551	CAPBEAM	5	2					46'-0"
A552	CAPBEAM	5	2					41'-1"

BENT NO. 1 (con't.)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A553	CAPBEAM	5	6					60'-0"
A554	CAPBEAM	5	4					14'-1"
A555	CAPBEAM	5	4					13'-7"
A556	CAPBEAM	5	4					12'-3"
A557	CAPBEAM	5	2					20'-10"
A558	CAPBEAM	5	2					11'-4"
A559	CAPBEAM	5	2					6'-11"
A850	FOOTING ⚠	8	182					10'-8"
A1050	CAPBEAM ⚠	10	4					14'-0"
A1051	COLUMN	10	36					14'-5"
A1052	CAPBEAM	10	18					32'-7"
A1053	CAPBEAM	10	9					34'-0"
A1054	CAPBEAM	10	9					54'-9"
A1055	COLUMN	10	36					16'-2"
A1056	CAPBEAM	10	5					20'-10"
A1057	COLUMN	10	12					15'-5"
A1058	CAPBEAM	10	5					36'-2"
B1050	CAPBEAM	10	4	19'-0"				20'-5"
C450	CAPBEAM	4	36	1'-3"				1'-11"
C1050	COLUMN ⚠	10	84	11'-1"				12'-11"
CA450	CAPBEAM	4	208	1'-3"	2'-0"			3'-3"
CA451	CAPBEAM	4	4	1'-3"	4'-0"			5'-3"
CD550	CAPBEAM	5	5	6'-6"	2'-0"	1'-3"		8'-6"
CD650	CAPBEAM	6	10	4'-0"	5'-6"	6'-1"		9'-6"
CD651	CAPBEAM	6	10	13'-1"	5'-7"	5'-3"		18'-8"
D1050	CAPBEAM	10	5	46'-5"				49'-3"
E550	CAPBEAM	8	5	4'-0"	5'-5"	1'-11"	6'-1"	14'-1"
L450	RISER BLOCK	4	12	3'-8"	1'-0"	4'-2"		16'-6"
L550	CAPBEAM ⚠	5	160	3'-1"	1'-0"	3'-8"		14'-4"
SERIES L551	CAPBEAM ⚠	5	4	3'-1"	1'-0"	DIM. "C" VARIES FROM 1'-9" TO 3'-7" IN INCREMENTS OF 2 3/16" (11 BARS)		135'-8"
SERIES L552	CAPBEAM ⚠	5	4	3'-1"	1'-0"	DIM. "C" VARIES FROM 1'-8" TO		48'-4"

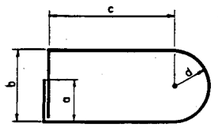
BENT NO. 1 (con't.)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SERIES L553	CAPBEAM ⚠	5	4	3'-1" IN. INCREMENTS OF 7 1/8" (4 BARS)	1'-0"			49'-0"
SERIES L554	CAPBEAM ⚠	5	10	3'-1"	1'-0"	1'-7"		10'-2"
SERIES H450	RISER BLOCKS	4	12		2'-10"			28'-4"
				DIM. "A" VARIES FROM 1'-0" TO 2'-0" IN INCREMENTS OF 4" (4 BARS)				
HA450	CAPBEAM	4	6	6"	3'-6"	3'-3"		7'-2"
HA451	CAPBEAM	4	6	6"	2'-4"	3'-3"		6'-0"
HA452	CAPBEAM	4	4	6"	2'-1"	3'-3"		5'-3"
HA453	CAPBEAM	4	4	6"	11"	3'-3"		4'-1"
T450	COLUMN	4	84	3'-2"	1'-0"			10'-11"
P450	RISER BLOCKS	4	4	SEE BAR DETAIL THIS SHEET				12'-3"

BENT NO. 2

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A450	CAPBEAM	4	12					27'-2"
A451	CAPBEAM	4	16					15'-4"
A550	CAPBEAM	5	2					47'-2"
A551	CAPBEAM	5	2					46'-10"
A552	CAPBEAM	5	2					41'-11"
A553	CAPBEAM	5	6					60'-0"
A554	CAPBEAM	5	4					13'-1"
A555	CAPBEAM	5	4					12'-7"
A556	CAPBEAM	5	4					10'-3"
A557	CAPBEAM	5	2					18'-8"
A558	CAPBEAM	5	2					11'-4"

BARS P



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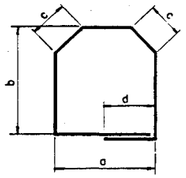
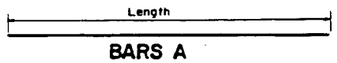
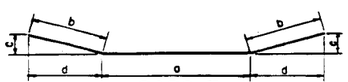


BARS M

BARS M



BARS A



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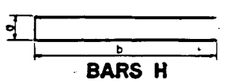

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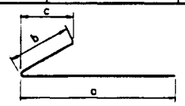
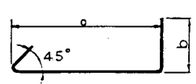
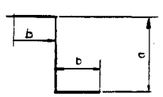


BARS CB



BARS YB



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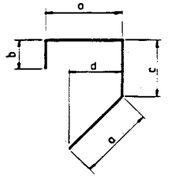
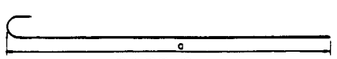
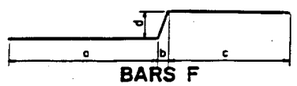


BARS J



BARS A

BARS B



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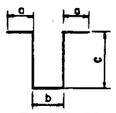
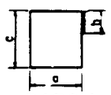
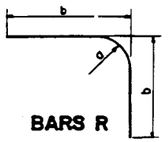


BARS K



BARS L



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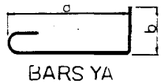
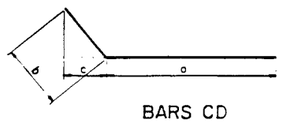
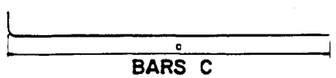


BARS YA



BARS CD



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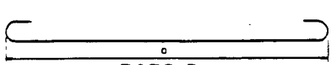
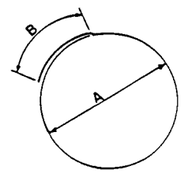


BARS D



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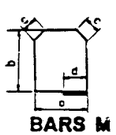
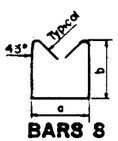


BARS M



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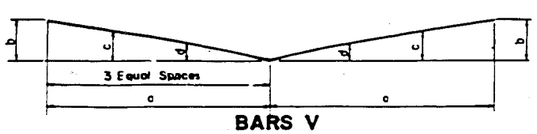
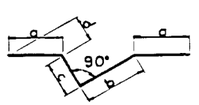


BARS V



BARS JX

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

NOTE Dimensions shown on this sheet are outside to outside of bar Standard C R S. I. Hook Details Shall Apply, Except As Noted.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL
WIDENING OF I-65
OVER
NORTH 1ST STREET
STATION – 226+26.91
DAVIDSON COUNTY
1985

DESIGNED BY WP DATE 6-83
DRAWN BY JMB & KLK DATE 6-83
SUPERVISED BY JLC & JMB DATE 6-83
CHECKED BY WP DATE 6-83

CORRECT Callan & Foveall
ENGINEER OF STRUCTURES
APPROVED Fred Evans
DIRECTOR OF HIGHWAYS

M-130-37

5-0-2

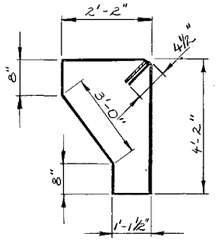
Const. No. 19010-3124-44 (I)
Const. No. 19010-3129-44 (IR)

BILL OF STEEL

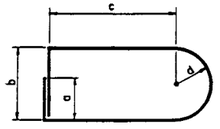
FED. ROAD DEPT. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-IR-65-3(72)83	86		

REVISIONS

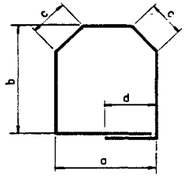
NO.	DATE	BY	BRIEF DESCRIPTION
1	2/19/86	J.V.	REV. BAR LENGTH & NO. REQ'D.



BARS P



BARS X



BARS M

BENT NO. 2 (con't.)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A559	CAPBEAM	5	2					6'-11"
A850	FOOTING ⚠	8	182					10'-8"
A1050	CAPBEAM ⚠	10	4					14'-0"
A1051	COLUMN	10	36					14'-5"
A1052	CAPBEAM	10	18					31'-7"
A1053	CAPBEAM	10	9					34'-0"
A1054	CAPBEAM	10	9					53'-9"
A1055	COLUMN	10	36					15'-5"
A1056	CAPBEAM	10	5					18'-8"
A1057	COLUMN	10	12					15'-6"
A1058	CAPBEAM	10	5					37'-0"
B1050	CAPBEAM	10	4	19'-0"				20'-5"
C1050	COLUMN ⚠	10	84	11'-1"				12'-11"
CA450	CAPBEAM	4	192	1'-9½"	2'-0"			8'-9"
CA451	CAPBEAM	4	4	1'-9½"	4'-0"			5'-9"
CD550	CAPBEAM	5	5	4'-4"	2'-0"	1'-3"		6'-4"
CD650	COLUMN	6	10	4'-0"	5'-6"	5'-1"		9'-6"
CD651	CAPBEAM	6	10	12'-8"	5'-7"	5'-3"		18'-3"
D1050	CAPBEAM	10	5	47'-1"				49'-11"
E550	CAPBEAM	5	5	4'-0"	5'-5"	1'-11"	5'-1"	14'-10"
H451	RISER BLOCK	4	24	3'-8"	2'-4"			8'-4"
L460	RISER BLOCK	4	12	3'-8"	1'-0"	4'-2"		16'-6"
L550	CAPBEAM ⚠	5	160	3'-1"	1'-0"	3'-8"		12'-4"
SERIES	CAPBEAM ⚠	5	4	3'-1"	1'-0"			135'-8"
L551				DIM. "C" VARIES FROM 1'-9" TO 3'-7" IN INCREMENTS OF 2 3/16" (11 BARS)				
SERIES	CAPBEAM ⚠	5	4	3'-1"	1'-0"	DIM. "C"		48'-4"
L552				VARIES FROM 1'-8" TO 3'-5" IN INCREMENTS OF 7/8" (14 BARS)				
SERIES	CAPBEAM ⚠	5	4	3'-1"	1'-0"	DIM. "C"		49'-0"
L553				VARIES FROM 1'-7" TO 3'-8" IN INCREMENTS				

BENT NO. 2 (con't.)

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SERIES				OF 8 5/16" (4 BARS)				
L553								
L554	CAPBEAM ⚠	5	10	3'-1"	1'-0"	1'-7"		10'-2"
T450	COLUMNS	4	81	3'-2"	1'-0"			10'-11"

BENT NO. 3

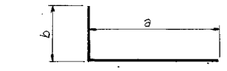
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A450	CAPBEAM	4	24					12'-9"
A451	CAPBEAM	4	12					15'-0"
A550	CAPBEAM	5	2					44'-8"
A551	CAPBEAM	5	2					44'-4"
A552	CAPBEAM	5	2					39'-5"
A553	CAPBEAM	5	6					60'-0"
A554	CAPBEAM	5	4					12'-1"
A555	CAPBEAM	5	4					11'-7"
A556	CAPBEAM	5	4					9'-3"
A557	CAPBEAM	5	2					19'-9"
A558	CAPBEAM	5	2					11'-4"
A559	CAPBEAM	5	2					6'-11"
A850	FOOTING ⚠	8	182					10'-8"
A1050	CAPBEAM ⚠	10	4					14'-0"
A1051	COLUMN	10	36					14'-1"
A1052	CAPBEAM	10	18					30'-7"
A1053	CAPBEAM	10	9					34'-0"
A1054	CAPBEAM	10	9					52'-9"
A1055	CAPBEAM	10	36					15'-4"
A1056	CAPBEAM	10	5					19'-9"
A1057	COLUMN	10	12					14'-2"
A1058	CAPBEAM	10	5					34'-6"
B1050	CAPBEAM	10	4	19'-0"				20'-5"
C450	CAPBEAM	4	36	1'-3"				1'-11"

BENT NO. 3 (con't.)

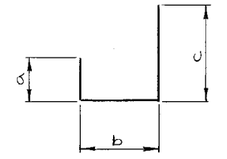
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
C1050	COLUMN ⚠	10	84	11'-1"				12'-11"
CA450	CAPBEAM	4	208	1'-3"	2'-0"			3'-3"
CA451	CAPBEAM	4	4	1'-3"	4'-0"			5'-3"
CD550	CAPBEAM	5	5	5'-5"	2'-0"	1'-3"		7'-5"
CD650	CAPBEAM	6	10	4'-0"	5'-6"	5'-1"		9'-6"
CD651	CAPBEAM	6	10	12'-2"	5'-7"	5'-3"		19'-9"
D1050	CAPBEAM	10	5	44'-6"				47'-4"
E550	CAPBEAM	5	5	4'-0"	5'-5"	1'-11"	5'-1"	14'-10"
SERIES	RISER BLOCKS	4	12		2'-10"			28'-4"
H450				DIM. "A" VARIES FROM 1'-0" TO 2'-0" IN INCREMENTS OF 4" (4 BARS)				
L450	RISER BLOCKS	4	12	3'-8"	1'-0"	4'-2"		16'-6"
L550	CAPBEAM ⚠	5	160	3'-1"	1'-0"	3'-8"		4'-4"
SERIES	CAPBEAM ⚠	5	4	3'-1"	1'-0"	DIM. "C"		135'-8"
L551				VARIES FROM 1'-9" TO 3'-7" IN INCREMENTS OF 2 3/16" (11 BARS)				
SERIES	CAPBEAM ⚠	5	4	3'-1"	1'-0"	DIM. "C"		48'-4"
L552				VARIES FROM 1'-8" TO 3'-5" IN INCREMENTS OF 7/8" (4 BARS)				
SERIES	CAPBEAM ⚠	5	4	3'-1"	1'-0"	DIM. "C"		49'-0"
L553				VARIES FROM 1'-7" TO 3'-8" IN INCREMENTS OF 8 5/16" (4 BARS)				
L554	CAPBEAM ⚠	5	10	3'-1"	1'-0"	1'-7"		10'-2"
P450	RISER BLOCKS	4	4	SEE BAR DETAIL THIS SHEET				12'-3"
T450	COLUMNS	4	80	3'-2"	1'-0"			10'-11"

PAVEMENT AT BRIDGE ENDS

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A490	SLAB	4	24					52'-0"
A491	SLAB	4	48					36'-4"
A492	SLAB	4	24					20'-0"
A490E	SLAB	4	24					55'-0"
A491E	SLAB	4	48					51'-0"
A492E	SLAB	4	48					38'-4"
A493E	SLAB	4	48					51'-0"
A494E	SLAB	4	24					22'-0"
A690E	SLAB	6	126					23'-8"
A790E	FOOTING	7	8					50'-2"
A791E	FOOTING	7	16					39'-0"
A792	FOOTING	7	8					16'-9"
A990	SLAB	9	111					23'-8"
F490	SLAB	4	24	3'-0"	1'-0"	3'-0"	3"	7'-0"
F490E	SLAB	4	24	3'-0"	1'-0"	3'-0"	3"	7'-0"
L590	FOOTING	5	111	1'-2"	1'-0"	2'-1½"		7'-5"
L590E	FOOTING & SLAB	5	106	1'-2"	1'-0"	2'-1½"		7'-5"



BARS CA

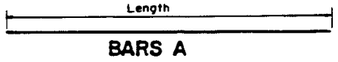


BARS HA

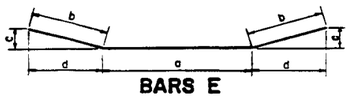
REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

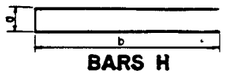
NOTE Dimensions shown on this sheet are outside to outside of bar Standard C R S. I. Hook Details Shall Apply, Except As Noted.



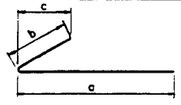
BARS A



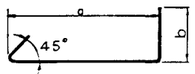
BARS E



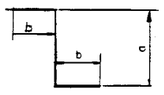
BARS H



BARS CB



BARS YB



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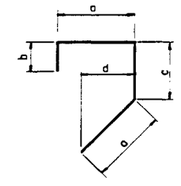
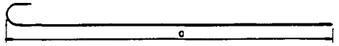
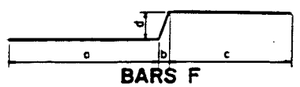


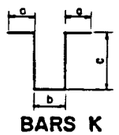
BARS J



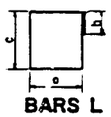
BARS B



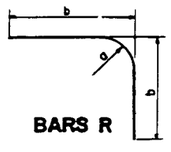
BARS F



BARS K



BARS L



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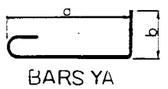
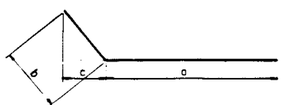


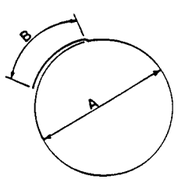
BARS YA

BARS C

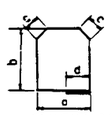


BARS CD

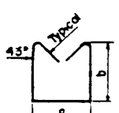
BARS D



BARS T

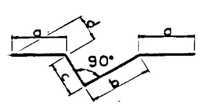


BARS M



BARS S

BARS V



BARS JX

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL
WIDENING OF I-65 OVER NORTH 1ST STREET
STATION - 226+26.91
DAVIDSON COUNTY
1985

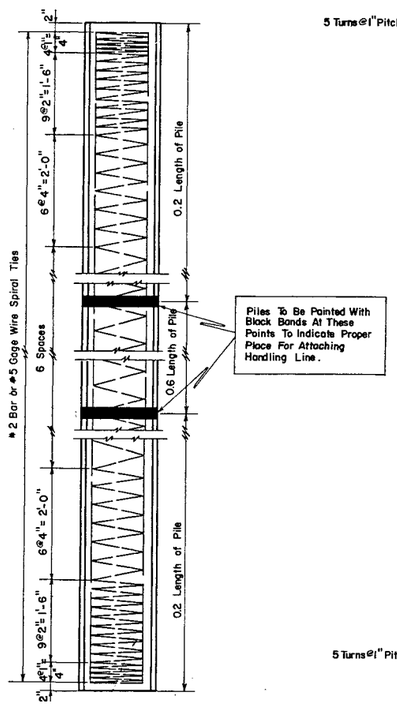
CORRECT Clellan L Foreall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

DESIGNED BY WP DATE 6-83
DRAWN BY KEK DATE 6-83
SUPERVISED BY WLC & JMB DATE 10-85
CHECKED BY WP DATE 10-85

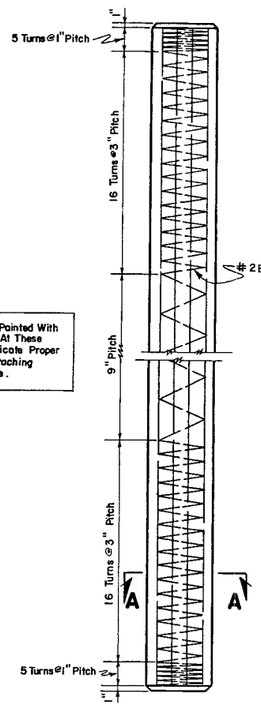
M-130-38

5-0-2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19		



PRECAST CONCRETE PILE



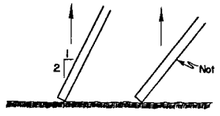
PRESTRESSED CONCRETE PILE

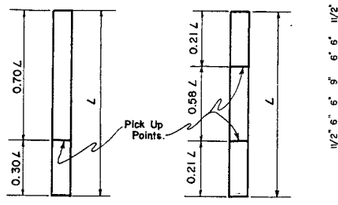
For Lengths Up To 40' | **For Lengths From 41' To 50'** | **For Lengths From 51' To 60'**

NOTE: If It Becomes Necessary To Use Size 2 Piles The Contractor Will Be Allowed An Increase In The Size 1 Bid Of 25 %.

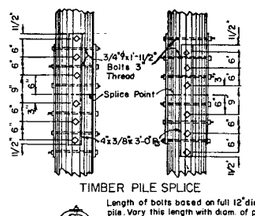
Length Of Of Pile	Longitudinal Reinforcing	Weight Of Steel Per Ft.	Weight Of Pile Per Ft.
Up To 35'	4 #7 Bars	9.6 #	205.3 #
36' To 40'	4 #8 Bars	12.2 #	205.3 #
41' To 45'	4 #9 Bars	15.1 #	265.3 #
46' To 50'	4 #10 Bars	18.8 #	265.3 #
51' To 55'	8 # 9 Bars	28.9 #	265.3 #
56' To 60'	8 # 10 Bars	36.2 #	265.3 #

NOTE: In Handling The Piles, They Shall Be Supported At The Points Indicated. Piles To Be Picked Up By Pulling On Both Lines Uniformly. End Of Pile Not To Touch Ground Unless Piles Inclined 1:2 Or Steeper.

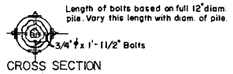




SINGLE POINT PICK-UP | **DOUBLE POINT PICK-UP**



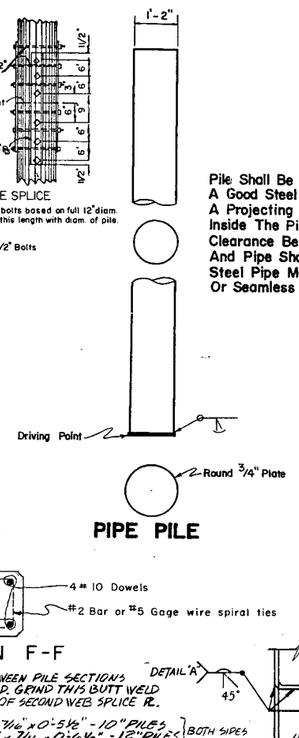
TIMBER PILE SPLICE



CROSS SECTION

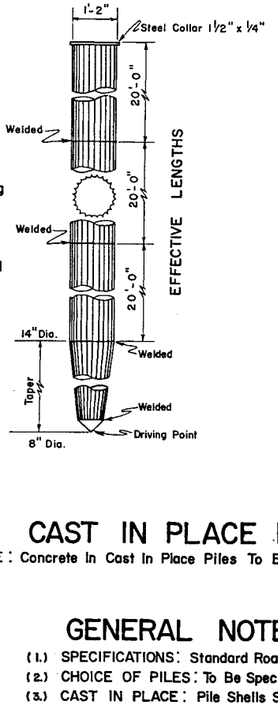
Length of bolts based on full 12" diam. pile. Vary this length with diam. of pile.

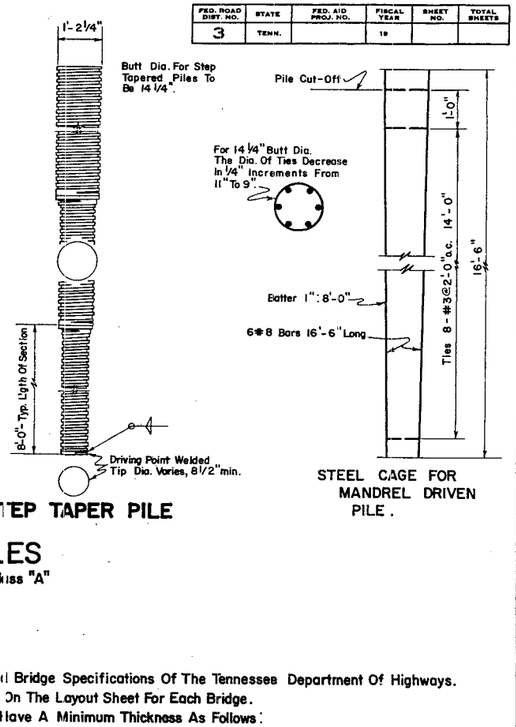
NOTES: (1.) Maximum Length Single Pick Up Point - 60'-0"
(2.) Maximum Length Double Pick Up Point - 85'-0"
(3.) Piles To Be Marked At These Points To Indicate Proper Place For Attaching Handling Lines.
(4.) For Greater Lengths Three Point Pick-up Is Required.



PIPE PILE

Pile Shall Be Driven With A Good Steel Head Having A Projecting Ring Fitting Inside The Pipe. Clearance Between Ring And Pipe Should Be ¼". Steel Pipe May Be Welded Or Seamless Steel.

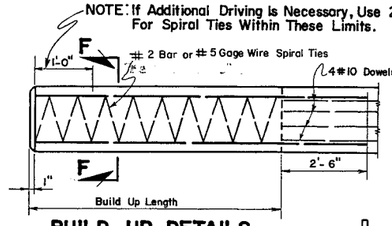




STEP TAPER PILE

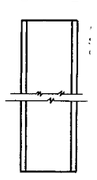
STEEL CAGE FOR MANDREL DRIVEN PILE.

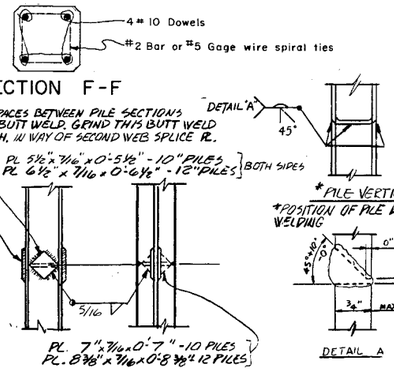
NOTE: If Additional Driving Is Necessary, Use 2" Pitch For Spiral Ties Within These Limits.



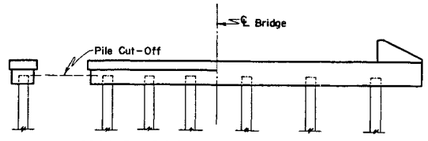
BUILD UP DETAILS

NOTE: Driving Of Built-Up Piles Shall Be Permitted Only At The Direction Of The Engineer.





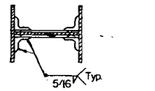
DETAIL OF PILE SPLICE

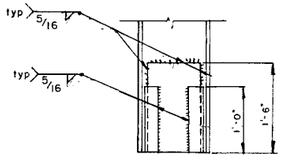


HALF BENT HALF ABUTMENT

CASE II

PRECAST CONCRETE FOR STEEL





DETAIL OF PILE DRIVING POINT

NOTE Cost of driving point to be included in the unit price bid for steel piles

Pile	2 Pl's	4 L's
10"	6" x 1/2"	3 1/2" x 3 1/2" x 1/2"
12"	7" x 1/2"	4" x 4" x 1/2"
14"	8" x 1/2"	5" x 5" x 1/2"

CAST IN PLACE PILES

NOTE: Concrete In Cast In Place Piles To Be Class "A"

GENERAL NOTES

(1.) SPECIFICATIONS: Standard Road And Bridge Specifications Of The Tennessee Department Of Highways.

(2.) CHOICE OF PILES: To Be Specified On The Layout Sheet For Each Bridge.

(3.) CAST IN PLACE: Pile Shells Shall Have A Minimum Thickness As Follows:
1. Piles Driven Without Mandrel - 7 Gage.
2. Piles Driven With Mandrel Shall Be Of Sufficient Strength And Thickness To Hold Its Original Form And Show No Sign Of Distortion After The Core Has Been Withdrawn.
3. Steel Pipe Shall Be Welded Or Seamless Steel Conforming To ASTM Designation A-252 Grade 2 Welded And Seamless Steel Pipe Piles.
Steel Cage For All Mandrel Driver Piles Will Be Required.
The Contractor Shall Maintain On The Job At All Time Prior To And During The Filling Of The Shells, A Light Suitable For Their Inspection. Improperly Driven, Broken Or Otherwise Defective Shells Shall Be Removed And Replaced Or Otherwise Corrected To The Satisfaction Of The Engineer By Removal And Replacement Or The Driving Of An Additional Pile At No Extra Cost.

(4.) PRESTRESSED CONCRETE PILES: 1. Concrete Shall Have A Minimum 28 Day Strength Of 5000 PSI With A Release Strength Of 3500 PSI For 3/8" ø Strands.
2. Spiral Ties Shall Be Tied To Corner Strands At Intervals Adequate To Prevent Excessive Movement During Vibration. They May Be Manufactured From Stock Meeting Any Grade Of Reinforcing Steel Or Hard Drawn Wire.

(5.) PILE POINTS: All Cast In Place Piles Shall Be Equipped With A Steel Driving Point. Driving Points Shall Be Mill Welded To The Pile Shell. Driving Points May Be Either Structural Steel, Forged Steel Or Cast Steel. Steel Piles Shall Have A Square Cut End Only. No Driving Point Is Required Unless Shown On The Bridge Plans.

(6.) SPLICES: Splice Details For Cast In Place Piles Shall Be Made In Accordance With The Manufacturers Recommendations, Subject To The Approval Of The Engineer. Splice Details For Steel And Prestressed Concrete Piles Shall Be In Accordance With The Details Shown On This Sheet.

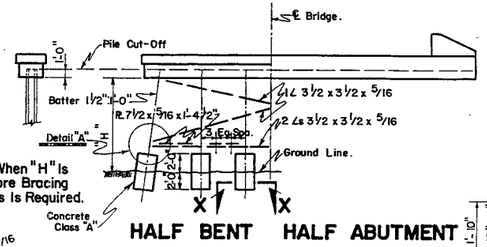
(7.) DRIVING FORMULA: Piles Shall Be Driven To A Minimum Capacity As Specified On The Layout Sheet As Determined By The Driving Formulas As Stipulated In The Specifications.

(8.) MILL TEST REPORTS: Notarized Mill Test Reports Will Be Required For All Steel Piles And Cast In Place Pile Shells.

(9) WELDING SPECIFICATIONS: AWS for Bridges.

(10) STRUCTURAL STEEL: Structural Steel conforming to ASTM A-7 or ASTM A-36-62T will be acceptable.

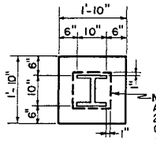
NOTE: When "H" Is 10' Or More Bracing For Bents Is Required.



HALF BENT HALF ABUTMENT

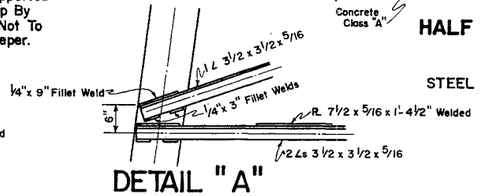
CASE I

STEEL FOR PRECAST CONCRETE



SECTION X-B

NOTE: Wrap Pile With American Welded Fabric 2"x2" No. 10 Wire. Cost of Wire Fabric to be included in Unit Price Bid for Class "A" Concrete



DETAIL "A"

Welds Typical For All End Joints And Intersections.

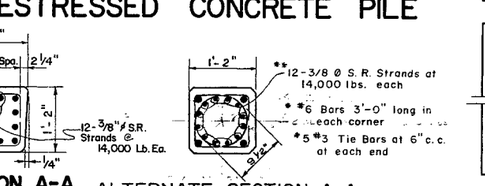
TYPICAL DETAILS

When The Substitution Of Steel For Precast Concrete Piles Or Precast Concrete For Steel Piles Is Permitted The Details Will Be As Shown Above. The Substitution Does Not Permit Changing The Number Of Piles In Either Case. Should The Contractor, When Permitted, Elect To Make The Substitution Of Case I, The Cost Of Encasing Blocks At Ground Lines And Bracing If Required Shall Be Included In The Price Per Lin. Ft. Of Piles.

* NOTE: End reinforcement required at tip end and driving end for all piles with circular strand patterns.

** NOTE: Subject to the approval of the Engineer of Structures, alternate strand sizes and arrangements of equivalent total force may be substituted.

STEEL PILES



SECTION A-A ALTERNATE SECTION A-A

DESIGNED BY		DATE	
DRAWN BY	J.W. SOUTHERLAND	DATE	5-27-60
ATRACED BY	JOE B. CANTRELL JR.	DATE	2-6-62
CHECKED BY		DATE	

REV. - FEB. 6, 1962	REV. - JULY 25, 1960
REV. - MAR. 1, 1961 BATTER ON PRESTRESSED PILE	REV. - DEC. 14, 1964 SPIRAL TIES
REV. - DEC. 8, 1960	REV. - JAN. 22, 1964 COST OF WIRE FABRIC
REV. - OCT. 27, 1960	REV. - FEB. 24, 1966 TIMBER PILE SPLICE, DETAIL OF PILE DRIVING POINT
REV. - SEPT. 27, 1960 DELETE PILE SUBSTITUTIONS	REV. - NOV. 27, 1973 ADDED ALT. SECTION A-A
	REV. - NOV. 12, 1982 DETAIL OF PILE SPLICE

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

STANDARD PILE DETAILS

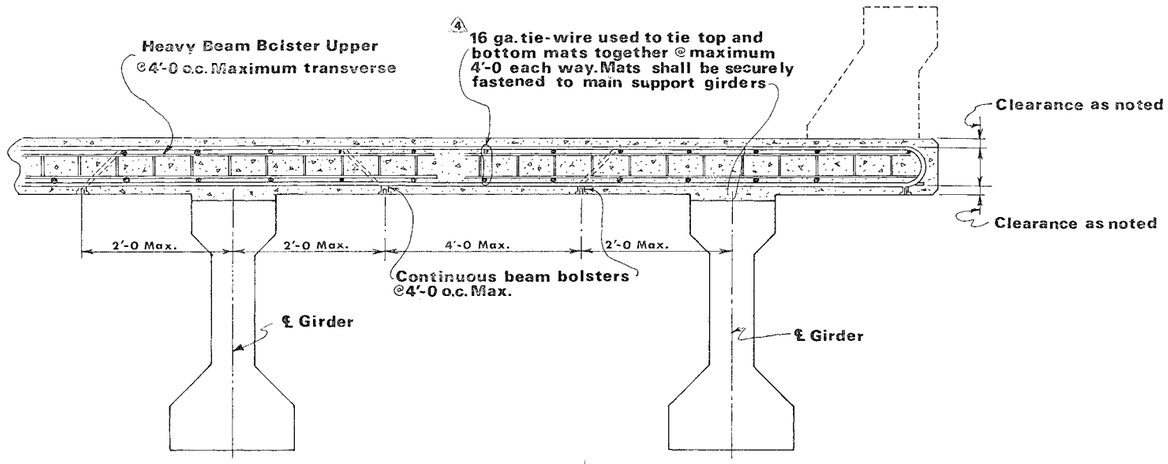
V 0 15

CORRECT: Fred Gurr, BRIDGE ENGINEER

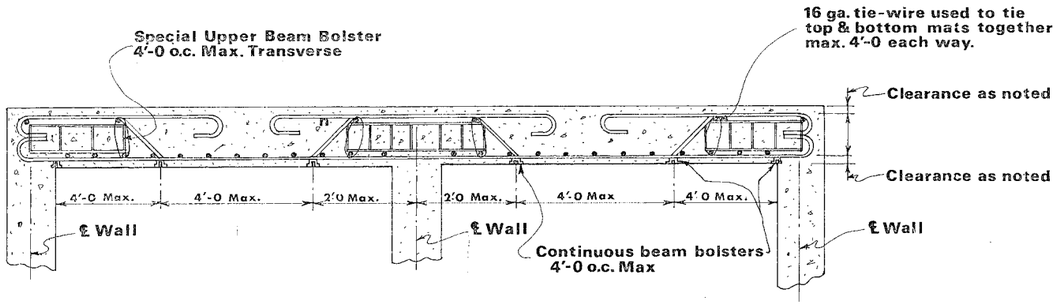
APPROVED: [illegible], STATE HIGHWAY ENGINEER

H-5-111

SEE Std.-5-1 & 5-2



TYPICAL DETAILS FOR GIRDER TYPE BRIDGES



TYPICAL DETAILS FOR BOX TYPE STRUCTURES

DESIGNED BY _____ DATE _____
DRAWN BY G.P. Mullican DATE 8-29-73
SUPERVISED BY _____ DATE _____
CHECKED BY _____ DATE _____

⚠ **TABLE A**

Ba Size	Approx dia. outside deformations (inches)
#3	7/16
#4	9/16
#5	11/16
#6	7/8
#7	1

⚠ **TABLE B**

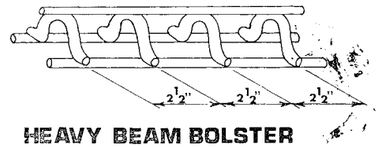
Bar Size	Approx dia. outside deformations (inches)
8	$1\frac{1}{8}$
9	$1\frac{1}{4}$
10	$1\frac{7}{16}$
11	$1\frac{5}{8}$
14	$1\frac{7}{8}$
13	$2\frac{1}{2}$

PROJECT NO.	YEAR	SHEET NO.

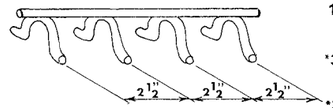
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	10-13-59		Reinf bar clearance
2	6-16-70		Gen. Revisions
3	9-12-74		Note 3 Changed
4	1-14-75		Revised Note
5	8-27-76		Revised Note #10 & added TABLE A & B, added note 13.

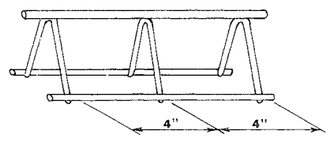
1. Reinforcement in Bridge slabs and top slabs of boxes shall be securely spaced from the forms by metal spacers as indicated this sheet. Other type spacers will not be permitted.
2. All beam bolsters (BB) & heavy beam bolster upper (HBBU) and Special Upper Beam bolster shall be made according to C.R.S.I. Specifications.
*3. Beam bolster (BB) legs in contact with forms and to be at exposed surface of concrete, shall be either "plastic protected" or "stainless steel protected"
4. Reinforcing bars shall be securely fastened together at each intersection using a minimum 16 ga. tie wire, except where spacing is less than one foot in each direction, alternate intersections shall be fastened.
5. Reinforcing bar supports shall be furnished to minus $\frac{1}{16}$" or plus $\frac{1}{8}$" of specified bar.
6. The top and bottom reinforcing mats shall be tied together at maximum of 4'-0 o.c. each way.
7. When any type shear connector protrudes from the top flange of the beam, the reinforcing steel shall be tied to these connectors at maximum 2'-0 o.c. along the beam.
8. Reinforcing steel shall not be used to support concrete buggies, material carts, or bundles of re-bars.
9. Cost of all bar supports and tie wire shall be included in bid price for reinforcing steel.
⚠ 10. A reinforcing bar may be substituted when a heavy Beam Bolster Upper of a 1" or less height is required. See Table A above.
11. A special Upper Beam Bolster (as detailed this sheet) may be substituted for heavy Beam Bolster Uppers required in heights of $5\frac{1}{4}$" or greater.
12. Steel in top & bottom of slabs of Reinforced Concrete Hollow Box Girders will be supported in accordance with this drawing.
*3a. Plastic protected legs shall be dipped and baked onto the upturned legs per the latest C.R.S.I. specifications.
*3b. Stainless protected legs shall be made from stainless steel with a minimum chromium content of 16% (similar to AISI TYPE 430). Per the latest C.R.S.I. specifications.
⚠ 13. Use table A and/or B for bar sizes to determine beam bolster size to use.



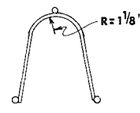
HEAVY BEAM BOLSTER UPPER (HBBU)



BEAM BOLSTER (B B)



SPECIAL UPPER BEAM BOLSTER



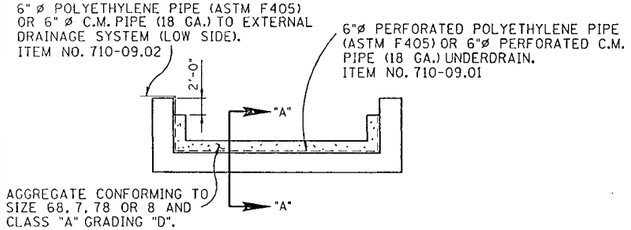
END VIEW

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS

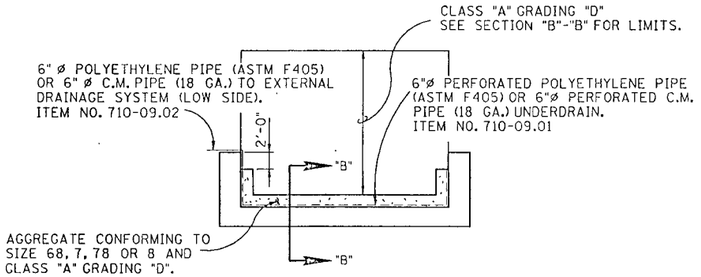
CORRECT H W Lochridge
ENGINEER OF STRUCTURES
APPROVED James Evans
DIRECTOR OF HIGHWAYS

K-80-14



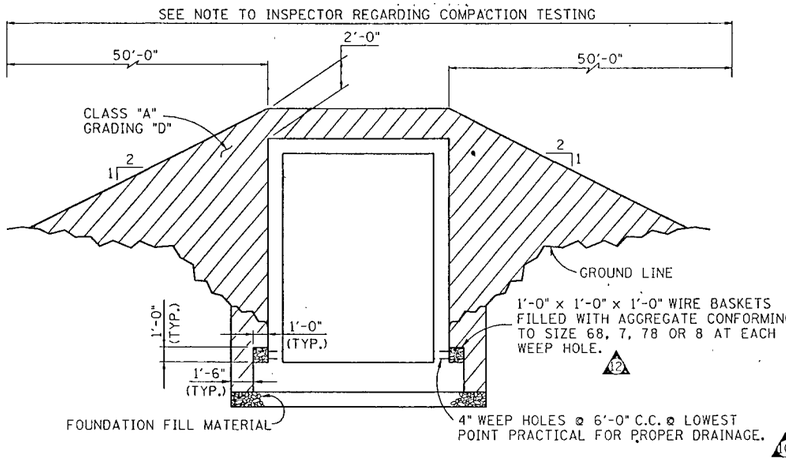
PLAN A ⑧

DIMENSION "H" 10'-0" OR LESS



PLAN B ⑧

DIMENSION "H" GREATER THAN 10'-0".



⑩ ⑨ BOX CULVERT OR BRIDGE

NOTE: CLASS "A" GRADING "D" LIMITS ARE TYPICAL FOR BOX CULVERT OR BRIDGE AND WINGWALLS. CLASS "A" GRADING "D" MATERIALS SHALL BE PAID FOR UNDER ROADWAY ITEM NO. 303-01.01. (SEE ROADWAY PLANS.)

PROJECT NO.	YEAR	SHEET NO.
	1971	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2-24-71	R.G.	
2	3-18-71	E.R.G.	ADDED NOTE NO.3
3	10-8-71	R.M.D.	EXCAVATION SECTION "B"-"B" CLARIFIED
4	10-10-72	R.M.D.	
5	11-27-72	R.M.D.	
6	9-9-72	C.L.L.	CHANGE NOTE
7	1-9-75	R.M.D.	NOTE CHANGED
8	7-17-86	R.M.D.	ADDED POLYETHYLENE PIPE
9	2-9-87	D.W.F.	GENERAL REVISIONS
10	6-25-87	R.M.D.	REV. PAY LIMIT BOX CULVERT, REMOVED INSERT & ADDED ITEM NO. FOR CLASS "A" GRADING "D"
11	1-7-91	R.M.D.	REV. ITEM NO. 710-09.02 TO 710-09.01 AND REV. ITEM NO. 303-01.01 TO 303-01.02
12	2-8-91	R.M.D.	REV. NOTE 2 TO INCLUDE RETAINING WALLS AND REV. ITEM NO. 710-09.02 TO 710-09.01
13	6-24-91	M.A.H.	ADDED SECTION SHOWING GEOCOMPOSITE DRAINAGE SYSTEM AND NOTE NO.4
14	9-1-91	M.A.H.	CHANGED DWG. NO. FROM K-85-150
15	9-18-91	M.A.H.	REMOVED WATERPROOFING
16	5-11-92	M.A.H.	DELETED ALTERNATE "B" AND NOTES

NOTES

⑩ 1. BACKFILLING: UNLESS OTHERWISE SPECIFIED OR DIRECTED, THE CONTRACTOR SHALL BACKFILL BEHIND ABUTMENTS, RETAINING WALLS OF BOX TYPE BRIDGES AND CULVERTS AS SOON AS THE FOLLOWING CONDITIONS ARE MET:

A. CONCRETE SURFACES AGAINST WHICH BACKFILL WILL BE PLACED HAVE BEEN GIVEN A CLASS 1 FINISH AS SPECIFIED IN SUBSECTION 604.22.

B. REPRESENTATIVE SPECIMENS OF THE CONCRETE IN THE STRUCTURE, SECTION OR UNIT, CURED BY THE METHODS AND IN THE MANNER THAT THE CONCRETE WHICH THE TEST SPECIMENS REPRESENT IS CURED, ATTAIN A COMPRESSIVE STRENGTH OF 3,000 POUNDS PER SQUARE INCH.

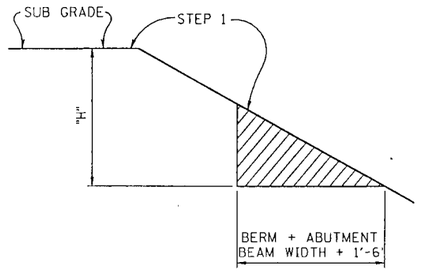
C. THE CONCRETE SHALL HAVE BEEN PLACED A MINIMUM OF 7 DAYS, NOT COUNTING THE DAYS OF TWENTY-FOUR HOURS EACH IN WHICH THE TEMPERATURE FALLS BELOW FOURTY DEGREES FAHRENHEIT, OR 21 CALENDAR DAYS WHICHEVER OCCURS FIRST.

THE PLACEMENT OF BACKFILL AND EMBANKMENT SHALL BE IN ACCORDANCE WITH SUBSECTION 204.11 AND SUBSECTION 205.04, REPECTIVELY, AND AS SPECIFIED ON THE PLANS.

⑩ ⑪ ⑫ 2. CLASS "A" GRADING "D" MATERIAL SHALL BE PAID FOR UNDER ITEM NO. 303-01.02, GRANULAR BACKFILL (BRIDGES) OR ITEM 303-01.03 THRU 303-01.08, GRANULAR BACKFILL (RETAINING WALLS).

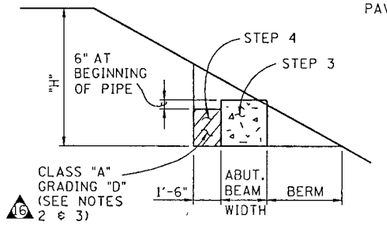
② 3. IN LIEU OF THE CLASS "A" GRADING "D" MATERIAL SHOWN, CLASS "B" GRADING "C" OR "D" MAY BE USED.

⑯ 4. LOCATE PIPE AT LOWEST POINT PRACTICAL FOR PROPER DRAINAGE WITH SLOPE PARALLEL TO ABUTMENT BEAM OR RETAINING WALL (⅛" PER FOOT MINIMUM). INSTALL PIPE AND 1'-0" OF COVER AS SOON AS POSSIBLE AFTER FORMING WALL.



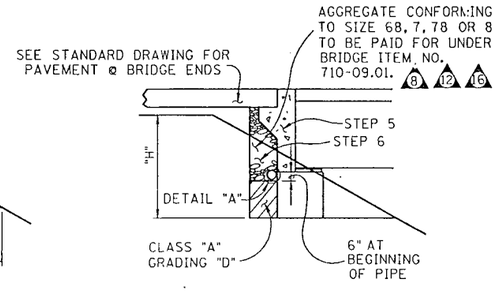
STEP 1: PLACE AND COMPACT END FILL.

STEP 2: EXCAVATE SHADED AREA AS SHOWN. SHALL BE PAID AS DRY EXCAVATION (BRIDGE) OR UNCLASSIFIED EXCAVATION (BRIDGE).



STEP 3: POUR ABUTMENT BEAM.

STEP 4: PLACE BACKFILL MATERIAL BEHIND ABUTMENT BEAM. ⑩ SEE NOTE 1.

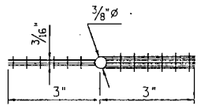


STEP 5: POUR ENDWALL.

STEP 6: PLACE BACKFILL MATERIAL BEHIND ENDWALL. SEE ⑩ NOTE 1.

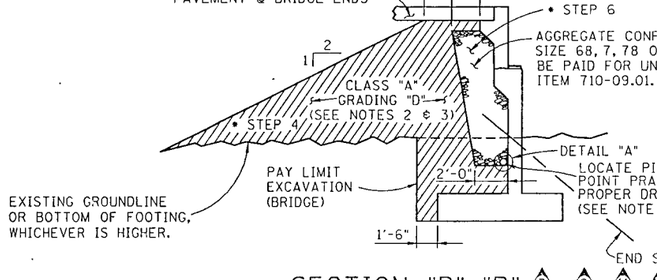
SECTION "A"-"A"

NOTE: THE CONSTRUCTION SEQUENCE SHOWN ABOVE IS APPLICABLE WHERE DIMENSION "H" IS LESS THAN OR EQUAL TO 10'-0".



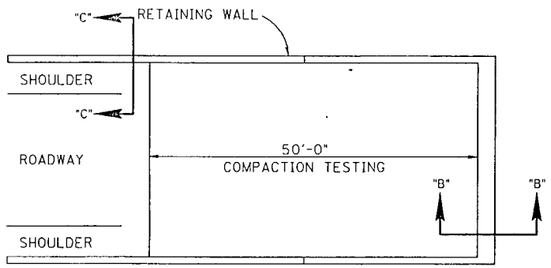
WATERSTOP DETAIL

(FOR LOCATION SEE DESIGN DRAWING)



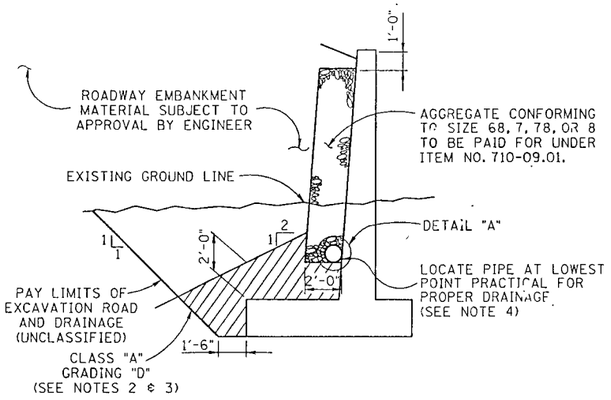
SECTION "B"-"B" ③ ⑨ ⑪ ⑯

(TYPICAL FOR COUNTERFORT OR CANTILEVER CLOSED ABUTMENTS GREATER THAN 10' IN HEIGHT)

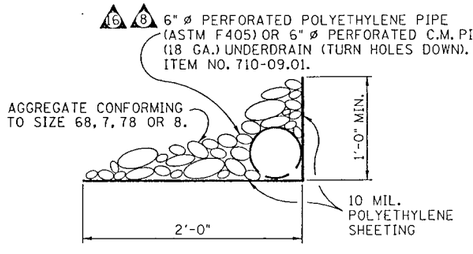


PLAN OF APPROACH ROADWAY AND ABUTMENT

⑩ NOTE TO INSPECTOR: SEE MATERIALS AND TESTS SAMPLING AND TESTING SCHEDULE FOR FREQUENCY OF COMPACTION TESTING OF EMBANKMENT AND BACKFILL MATERIAL. ALSO NOTE 1.



⑯ ⑬ ⑨ RETAINING WALL SECTION "C"-"C"



DETAIL "A"

⑯ MINOR REVISION - FHWA ⅛ APPROVAL NOT REQUIRED

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS 1971

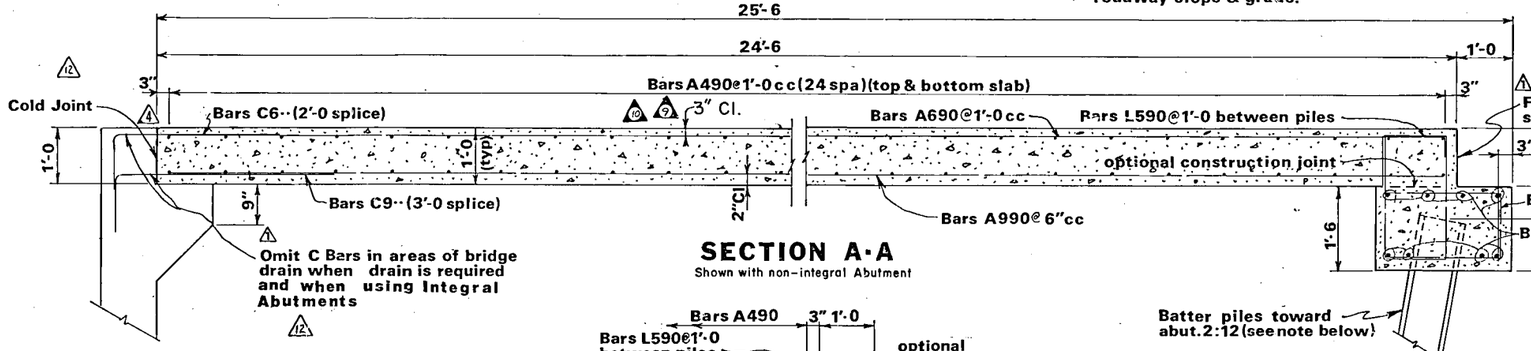
DESIGNED BY R. DISHNER DATE
DRAWN BY KEITH DOUGLAS DATE 1-91
SUPERVISED BY DATE
CHECKED BY R. DISHNER DATE 1-91

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

⑭ STD-10-1

K-85-150 Replaced with Std-10-1

NOTE: Top of slab to conform to roadway slope & grade.

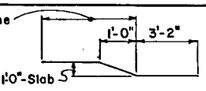


SECTION A-A

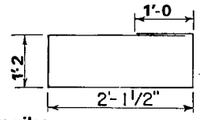
Shown with non-integral Abutment

Batter piles toward abut. 2:12 (see note below)

3'-8" + backwall + sine



BARS F9--



BARS L (9)

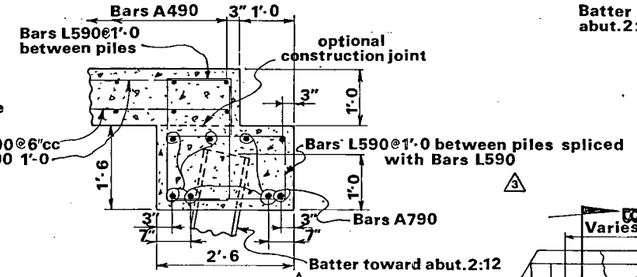
Total Length: 7'-5"

PROJECT NO.	YEAR	SHEET NO.

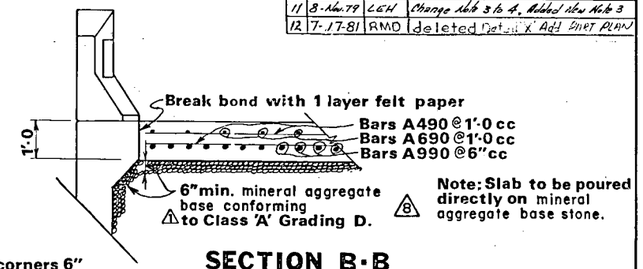
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	11-16-70	CMH	Compression seal added, aggregate size changed. General notes revised & bridge drain details.
2	12-18-70	CMH	Section D-D & notes added, compression seal note removed & Expansion joint note added
3	8-12-71	RMD	Clarified spacing & no. of L590 bars
4	3 12 74	RMD	Removed V Notch
5	7-18-75	RMD	Added Detail X & Revised Note 3
6	8-18-75	RMD	Revised Roadway Drain
7	3-2-76	CPR	Changed Dwg. No. on Detail "A"
8	6-17-76	CMH	Revised aggregate designation
9	8-30-76	RMD	Revised minimum clearances
10	5-Dec-77	EPW	Rev. Note 2 & Min. Cl. on top Re bar
11	8-Nov-79	LGH	Change Add 3 to 4, Added New Note 3
12	7-17-81	RMD	deleted Detail X Add SHT PLAN

Note: Location of notch for bridge drain shall be as shown on the Roadway Plans and/or Bridge Plans and shall be constructed in accordance with the fit-up requirements of Standard Drawing D-CB-9 or as directed by the Engineer



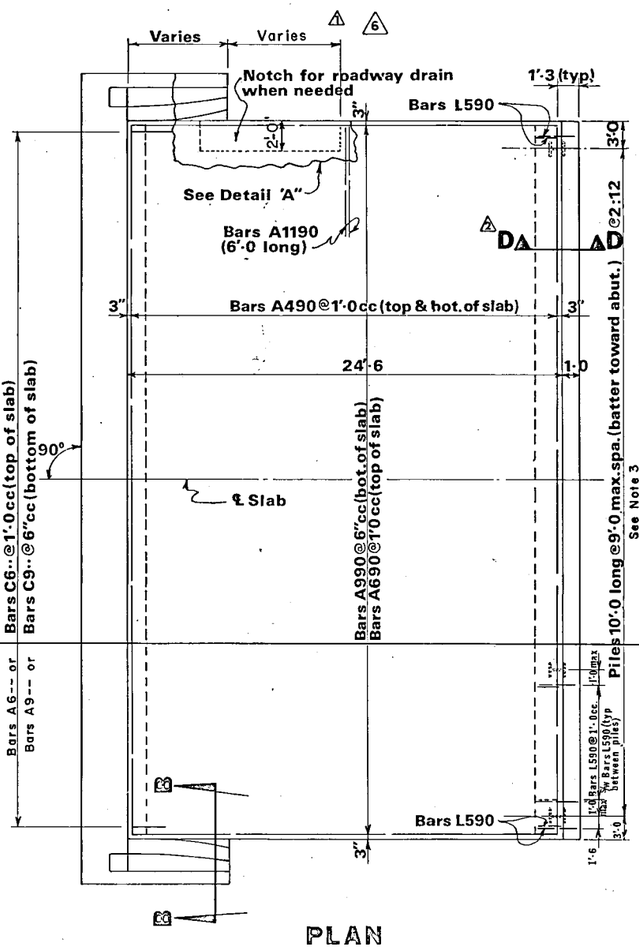
SECTION D-D



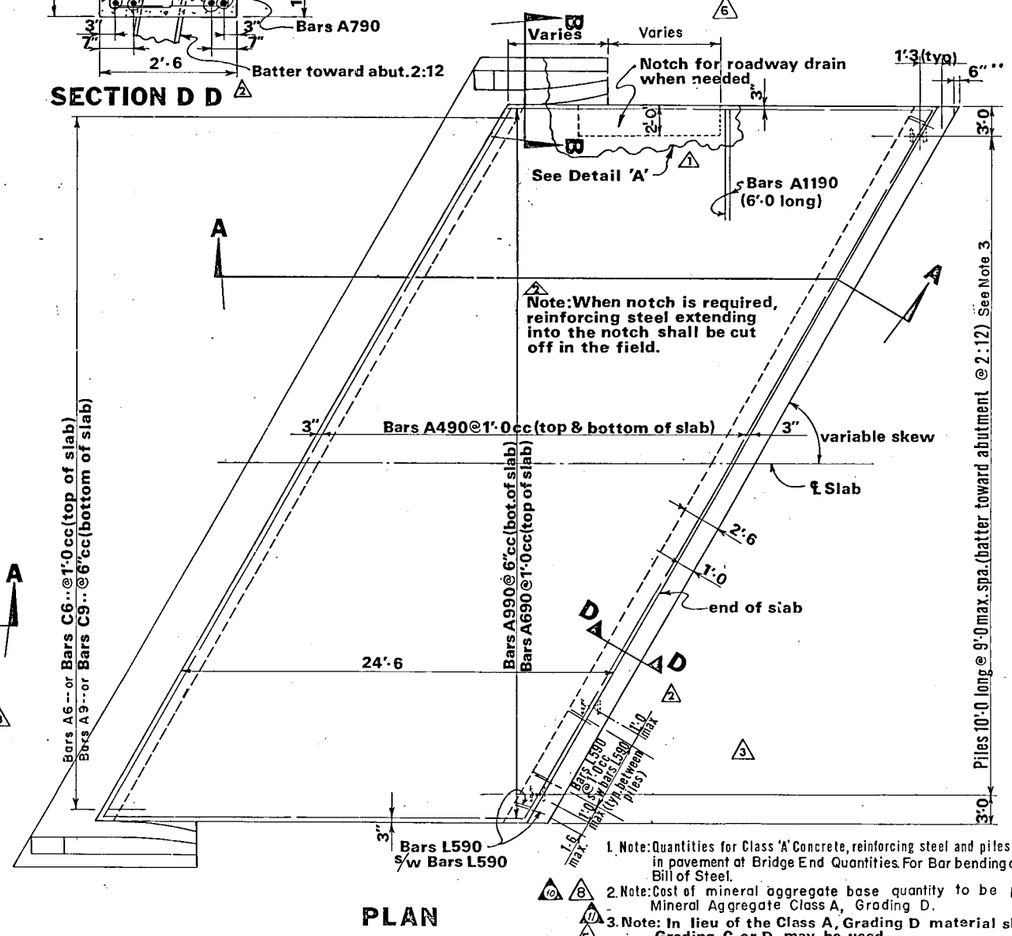
Note: Slab to be poured directly on mineral aggregate base stone. (8)

SECTION B-B

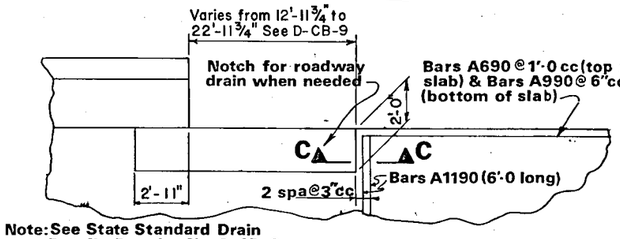
"Clip corners 6" for 60° or less



PLAN

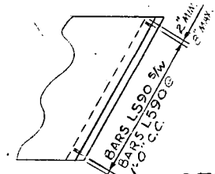


PLAN

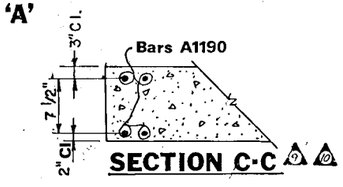


Note: See State Standard Drain Details Drawing No. D CB-9

DETAIL 'A'



PART PLAN (SHOWING L BAR SPA. WITH PILES OMITTED)



SECTION C-C

GENERAL NOTES

CONCRETE: To be Class 'A' (F'c = 3,000 psi)

REINFORCING STEEL: To be ASTM A615. Bending dimensions shown are based on Grade 40. Spacing dimensions are center to center unless otherwise noted.

SPECIFICATIONS: Standard Road & Bridge Specifications of the Tennessee Department of Highways (Current Edition)

1. Note: Quantities for Class 'A' Concrete, reinforcing steel and piles are included in pavement at Bridge End Quantities. For Bar bending dimensions, see Bill of Steel.
2. Note: Cost of mineral aggregate base quantity to be paid as Item 303-01 Mineral Aggregate Class A, Grading D.
3. Note: In lieu of the Class A, Grading D material shown, Class B, Grading C or D may be used.
4. Note: Piles shall be HP10@42# or Precast Concrete Size I as shown in Estimated Quantities. Piles shall have a maximum length of 10'-0 regardless of bearing and shall be spaced at 9'-0 maximum. Piles shall be omitted if beam is supported on rock or rock fill or if the Abutment is integral.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

STANDARD DRAWING
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS

DESIGNED BY C.M. Hiles DATE 8-70
DRAWN BY GPM DATE
SUPERVISED BY C.M. Hiles DATE
CHECKED BY D.W. Fortner DATE 10-8-70

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

K-86-144

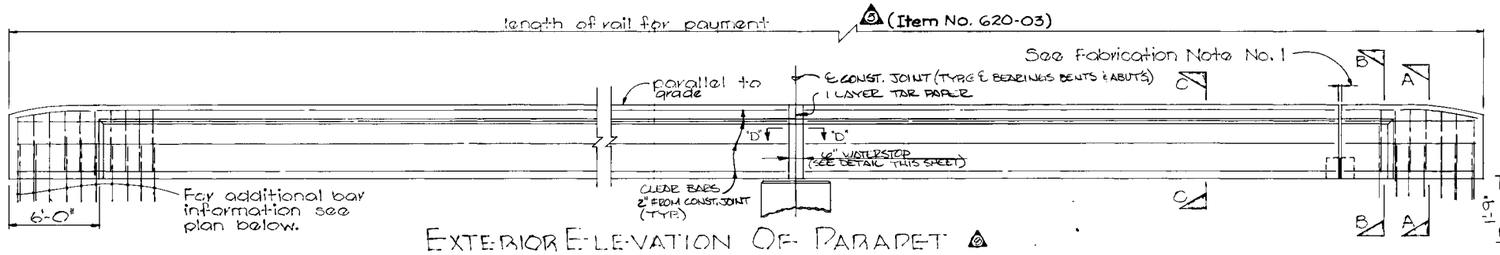
Copy - 1 OF 4 2-5-92

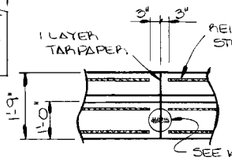
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		1973		

REVISIONS

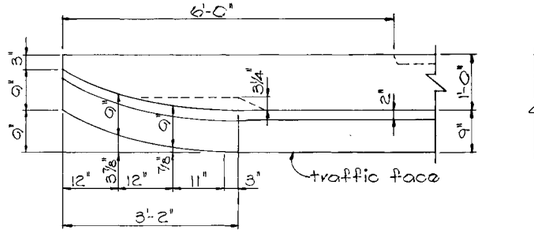
NO.	DATE	BY	BRIEF DESCRIPTION
1	11-23-73	C.M.H.	General Revisions
2	9-4-74	C.M.H.	vertical face to slope face
3	9-19-74	C.M.H.	changed parapet height
4	1-28-76	R.M.D.	changed guardrail connection height
5	7-17-81	RMD	Item No. 6 No. 23
6	11-23-82	RMD	HEIGHT CHANGE GEN. REV.
7	3/28/86	RMD	ADDED NOTE 4 FAB. INSERT DET.
8	4/11/85	RMD	ADDED CONSTRUCTION JOINTS
9	10/22/86	RMD	CHANGED ALL BARS TO EPOXY AND ADDED SECTION D-D

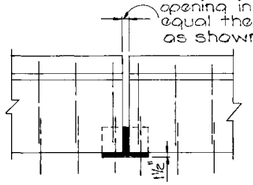
EXTERIOR ELEVATION OF PARAPET ⑥



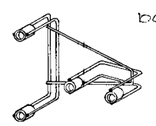


SECTION D-D

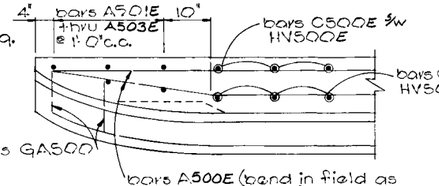




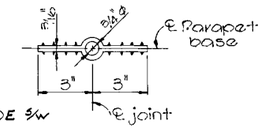
JOINT DETAIL



⑤ DETAIL OF FABRICATED INSERT



⑤ PLAN



WATERSTOP DETAIL

Dimensions shown are for a 1" joint. Adjust bulb dimensions for a larger joint. Also see design drawings and shop drawings of Roadway Expansion Devices.

GENERAL NOTES

⑤ Design: AASHTO Specifications current edition with addenda.

⑥ Specifications: Standard Road and Bridge Specs. of the Tennessee Department of Transportation (Current Edition)

Concrete: To be Class 'A', f'c = 3000 psi. See Special Provision Regarding Section 604 – Concrete Structures.

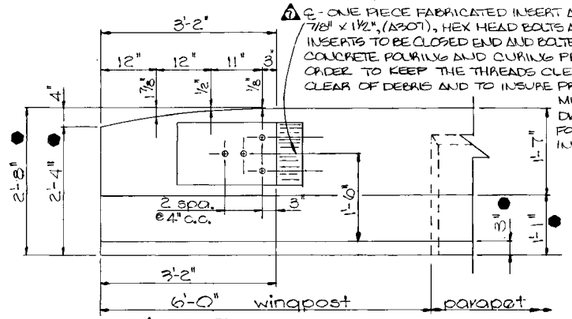
⑥ Reinforcing Steel: To be ASTM A615 Grade 60. Standard CRSI hook details apply unless otherwise noted on Bill of Steel. Bending dimensions shown are based on Grade 60. Spacing dimensions are center to center unless other noted on detail drawings. **ALL BARS TO BE EPOXY COATED.**

Waterstops: See Tennessee Standard Specification Section 918.11.

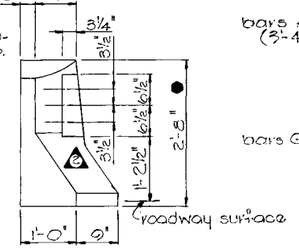
Fabrication:

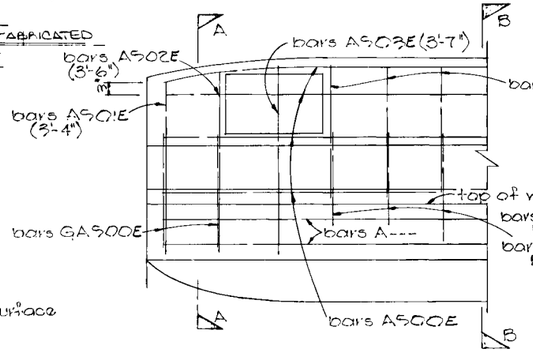
1. Open joints or filled joints will be allowed in the parapet only when shown on project drawings. Joints shall conform to the joint detail this sheet or as otherwise shown on project drawing.
2. Parapet concrete shall not be cast prior to removal of all superstructure related false work.
3. Alignment and profile of parapet shall conform to roadway profile and geometry.

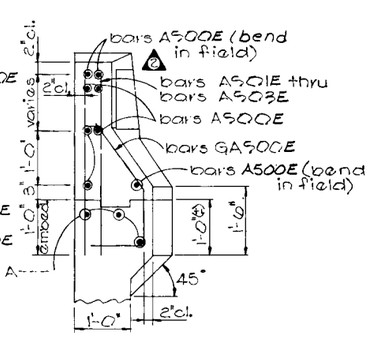
PLAN OF WINGPOST



① ℄ - ONE PIECE FABRICATED INSERT ASSEMBLY ¼"-7/16" x 1½", (A307), HEX HEAD BOLTS AND WASHERS. INSERTS TO BE CLOSED END AND BOLTED TO DURING CONCRETE POURING AND CURING PROCESS IN ORDER TO KEEP THE THREADS CLEAN AND CLEAR OF DEBRIS AND TO INSURE PROPER ALIGNMENT. SEE STD. DWG. S-6A-15 FOR ADDITIONAL INFORMATION.







⑥ ④ ELEVATION

- based on no overlay on bridge for actual overlay dimensions. See Bridge Deck Sealant Note on Bridge Layout Sheet.

END ELEVATION ④ ⑥

ELEVATION ⑤

Note: N.F. = Near Face
F.F. = Far Face

SECTION A-A ⑤
typical at wingpost

QUANTITIES FOR WING POST (EACH) ⑥

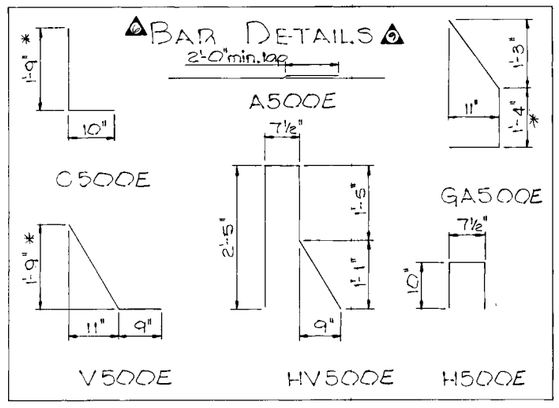
Class "A" Concrete	EPOXY REINF. STEEL
.62 c.y.	110 lbs.

PARAPET QUANTITIES PER L.IN. FT. * ⑥

Class "A" Concrete	EPOXY REINF. STEEL
.113 c.y.	21 lbs.

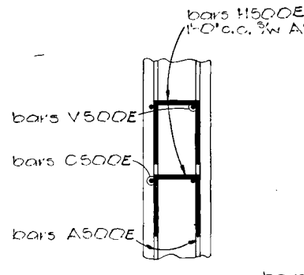
* Note: Quantities based on slab section without overlay.

BAR DETAILS ⑥

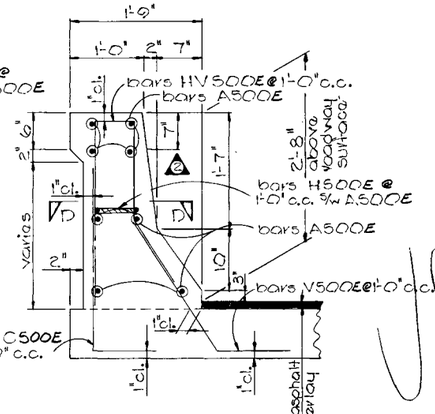


1. For dimensions are out to out. First digit of the number indicates size.
2. These bars shall be full length of parapet except that no bar will pass through open joints.

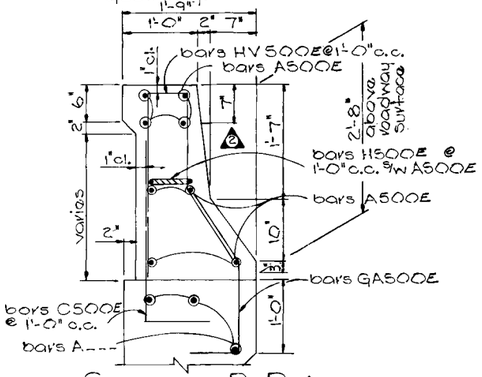
⑥ * EXCEPT C.J. NO OVERLAY ON THE BRIDGE. TO BE INCREASED AS REQUIRED FOR ASPHALT OVERLAY.



⑤ SECTION D-D



SECTION C-C ⑤
typical at slab section



SECTION B-B ⑤
typical at wing wall

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGE RAILING CONCRETE PARAPET 1973

DESIGNED BY C.M.H. DATE May '73
DRAWN BY T. Wilson DATE May '73
SUPERVISED BY C.M.H. & R.M.D. DATE May '73
CHECKED BY C.M.H. DATE May '73

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

M-28-1

DRAFTING MEDIA GRAPHIC CONTROLS CORPORATION Buffalo, New York Printed in U.S.A. ASTROFILM® N665.4

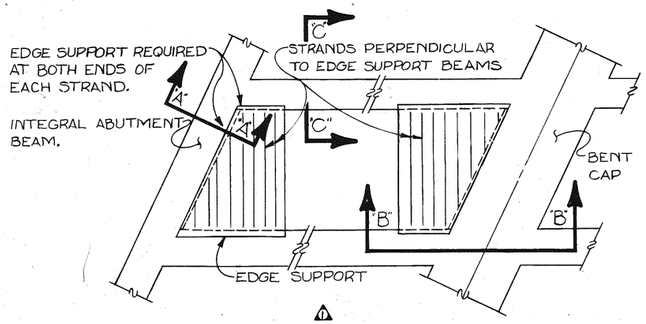
Copy 1 of 4

PROJECT NO.	YEAR	SHEET NO.
	1982	

REVISIONS

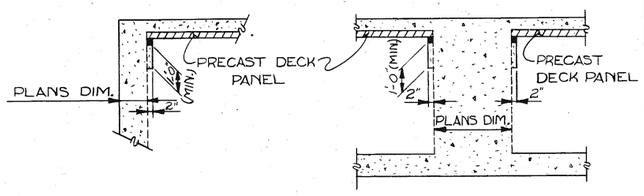
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-7-82	DWF	DELETE CONVENTIONAL CORNERS.
2	4-21-83	DWF	CHANGE TO NOTE 9 & ADD BITUMINOUS
3	7-3-84	DWF	BOX CULVERT CURB DETAILS

CAST-IN-PLACE CONCRETE

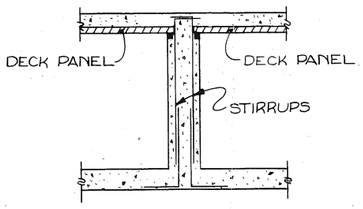


1

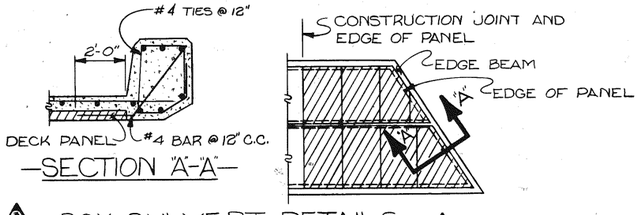
—SKEWED END PANEL—



—SECTION "A-A"— —SECTION "B-B"—



—SECTION C-C—



—SECTION "A-A"—

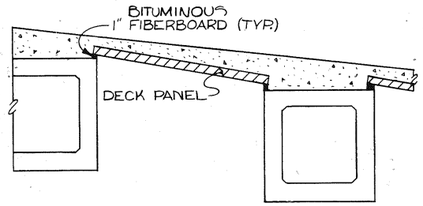
3 —BOX CULVERT DETAILS— 1

NOTE: EDGE BEAM AND END PANELS SHALL HAVE TEMPORARY FALSEWORK SUPPORT UNTIL CONCRETE IN EDGE BEAM REACHES MINIMUM REQUIRED STRENGTH.

BEFORE APPROVING SHOP DRAWINGS FOR CULVERT DECK PANELS THE CULVERT LENGTH, END SKEWS, AND LOCATION OF CONSTRUCTION JOINTS SHALL BE VERIFIED. SEE STANDARD SPECIFICATION ARTICAL 604-17 (E).

DESIGNED BY D.W.F. DATE 3-10-82
DRAWN BY V.L.F. DATE 3-15-82
SUPERVISED BY DATE
CHECKED BY D.W.F. AND R.L.H. DATE 3-22-82

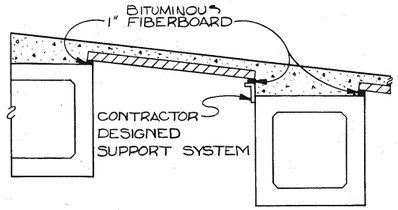
PRECAST CONCRETE BEAM



2

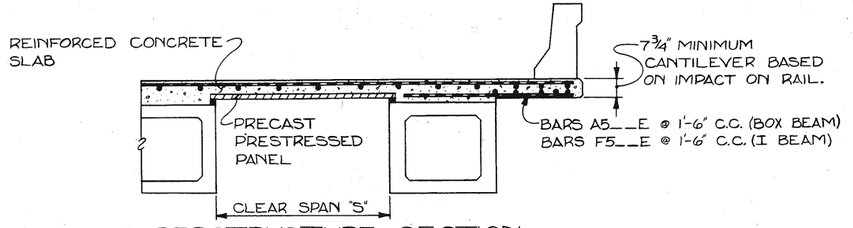
—TRANSVERSE SECTION— SUPERELEVATED

NOTE: ANY ADDITIONAL MATERIAL REQUIRED DUE TO THE USE OF DECK PANELS SHALL BE FURNISHED AT THE CONTRACTORS EXPENSE.



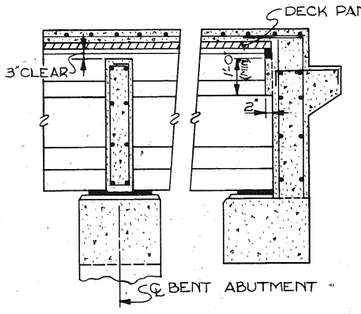
—OPTIONAL PANEL— SUPPORT DETAIL

NOTE: THIS DETAIL WILL ELIMINATE THE EXTRA CAST-IN-PLACE CONCRETE REQUIRED FOR BOX GIRDER BRIDGES IN A SUPERELEVATED SECTION. SEE NOTE 16 ON M-103-149.



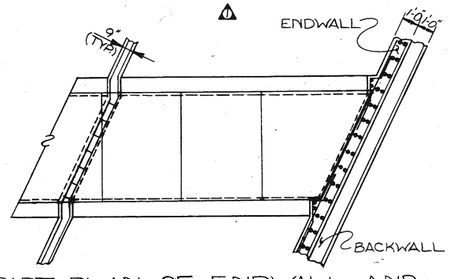
—SUPERSTRUCTURE SECTION—

NOTE: SEE CONTRACT DRAWINGS FOR SLAB DIMENSIONS AND REINFORCING DETAILS.



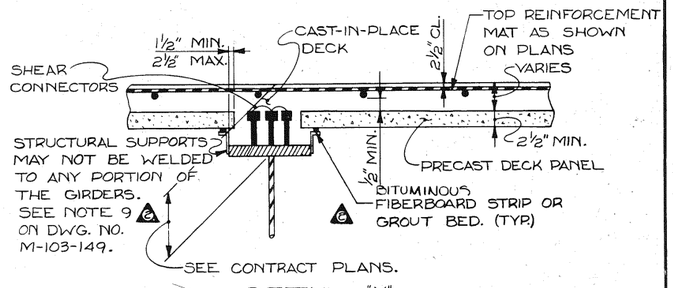
—LONGITUDINAL SECTION—
(PRECAST I-BEAM SHOWN)

NOTE: SHOWING PRECAST DECK PANELS CONTINUOUS OVER DIAPHRAGM AT BENT AND DETAIL OF SUPPORT AT INTEGRAL ABUTMENT WITH SKEWED END PANEL. THESE DETAILS ARE ALSO APPLICABLE FOR PRECAST BOX BEAM.



1 —PART PLAN OF ENDWALL AND— SUPPORT DIAPHRAGM

STEEL GIRDER



—DETAIL "X"—

NOTE: DECK PANELS MUST CLEAR SHEAR CONNECTORS, SPLICE PLATES, AND HIGH STRENGTH BOLTS. NOTCHES IN PANEL WILL NOT BE PERMITTED.

SEE DRAWING NO. M-103-149 FOR DESIGN CRITERIA AND DETAILS FOR PRESTRESSED I-BEAM NOT SHOWN THIS SHEET.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

TENNESSEE STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS 1982

CORRECT Clellan L Fawcett
ENGINEER OF HIGHWAYS
APPROVED Lewis Lyons
CHIEF ENGINEER

M-103-150

NOTE: M-103-149 MISSING

SET 2 RMB

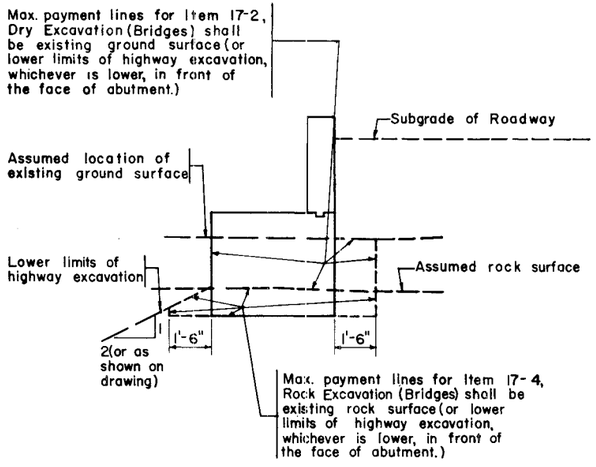
FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 Pt. II	19 61	6	77
CONTRACT NO.					

GENERAL NOTES

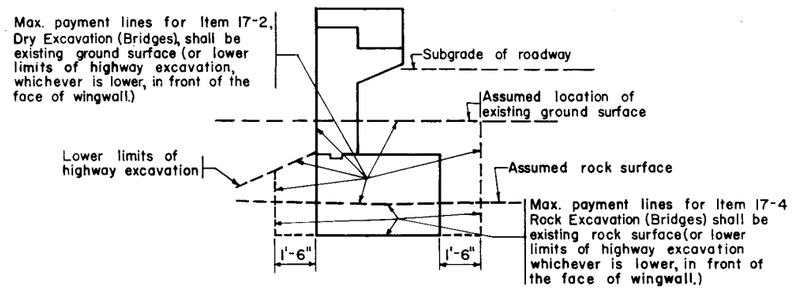
1. Materials, Fabrication and Construction shall conform to the Tennessee Dept. of Highways and Public Works Standard Specifications for Road and Bridge Construction, dated July 1, 1951 with revisions to date. Also see Special Provisions.
2. Design Specifcations shall conform to the A.A.S.H.O. Standard Specifications for Highway Bridges 1957, revised 1958.
3. Live loading shall be A.A.S.H.O. H20-S16 44 loading. Alternate loading specified in Par. 4(c) of P.R.M. 20-4 shall apply to Interstate Structs. only.
4. A future wearing course of 25 psf. has been provided for in the design.
5. A monolithic wearing course of 1/4" has been provided for in the design.
6. Structural Steel shall be Item 132-51 and shall conform to A.S.T.M. Standard Specification Designation A373, except that parts of bearings as noted shall conform to A.S.T.M. Standard Specification Designation A235 Class C-1, and Diaphragms to be A7.
7. All welding shall conform to the current specifications for Welded Highway and Railway Bridges of the American Welding Society, except as modified in the Special Provisions for welded girder structures.
8. Concrete shall be Item 135-4 Class A and shall conform to applicable requirements of the Tennessee Dept. of Highways and Public Works Standard Specifications.
9. Bar reinforcement shall be Item 135-12 and shall conform to the applicable requirements of the Tennessee Dept. of Highways and Public Works Standard Specifications.
10. Where called for on the drawings, rubber joint material or an approved equal shall be installed in accordance with the Special Provisions.
11. Where called for on the drawings, joint sealing compound shall be installed in accordance with the Special Provisions.
12. The cost of furnishing and installing all joint materials shall be included in the price bid for Class A concrete, Item 135-4.
13. All exposed edges of concrete shall be chamfered 3/4" except as noted.
14. Construction joints, other than shown on the drawings, will not be permitted without the written permission of the Engineer. Construction joints noted optional may be omitted.
15. When the Contractor elects to set anchor bolts by templates, the template shall be of sufficient strength to support and hold the bolts in their proper position and not displace when the concrete is placed. (Paid for under Item 132-51). When the contractor elects to drill the finished concrete to set the anchor bolts, it will be his responsibility to place the reinforcing steel in the bridge seat or pedestals to prevent interference with his drilling operation. Anchor bolts shall be set and grouted immediately after holes are drilled. (Paid for under Item 132-51).
16. Field connections shall be made with high tension bolts or rivets unless otherwise noted. See AASHO specifications, Art. 2.10.2 with amendments thereto.
17. Rallings should be set to the true alignment as shown on the drawings.

~~After the rock beneath the proposed foundations has been exposed and cleared off, holes 6 feet deep shall be drilled into the rock at locations designated by the Engineer.~~

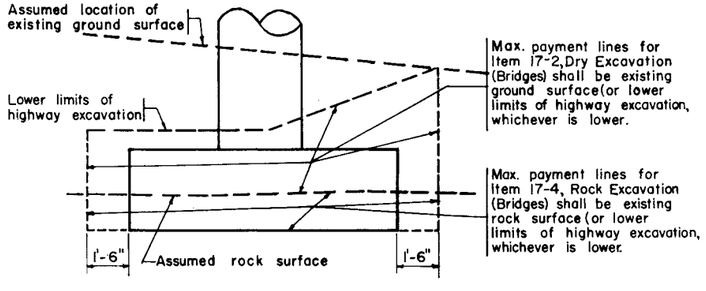
18. For design purposes the bearing pressure on rock beneath all foundations, does not exceed 8 tons per square foot.
19. Piles shall be driven to refusal on rock with a minimum bearing capacity of 45 tons (or design load [See Bridge Dwgs] if less.) Net penetration for last five blows shall not exceed 1/4" under a hammer delivering a blow of not less than 15,000 ft. lbs. unless otherwise ordered by the Engineer.
20. For self lubricating bronze plates and stud shear connectors, see Special Provisions.
21. Paint. See Specification. Final field coat to be aluminum.



CUT SECTION-STUB ABUTMENT



CUT SECTION-STUB ABUT. WINGWALL



CUT SECTION-BENT

PAYMENT LINES
N.T.S.

Recommended by:
PRAEGER-KAVANAGH
CONSULTING ENGINEERS
In Charge of
Made by
Traced by
Checked by

Rev. 8-28-61
Rev. 8-23-61

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

TYPICAL BRIDGE DETAILS I
PAYMENT LINES & GENERAL NOTES

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

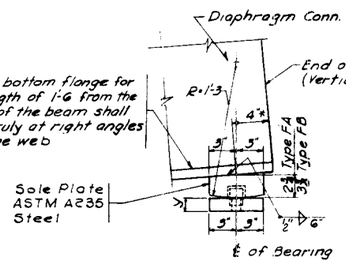
SCALE Not to Scale.
DATE Aug 1961
DRAWING NO. ST-1.
SHEET NO. 6

K-10-80

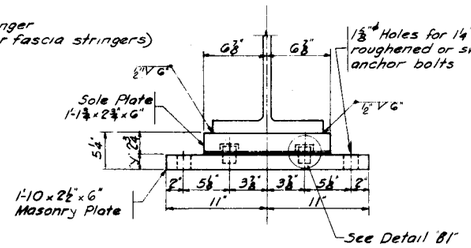
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO	TOTAL SHEETS
8	TENN.	I-65-3(10)184 PT. II	1961	7	77
CONTRACT NO.					

BEARING NOTES

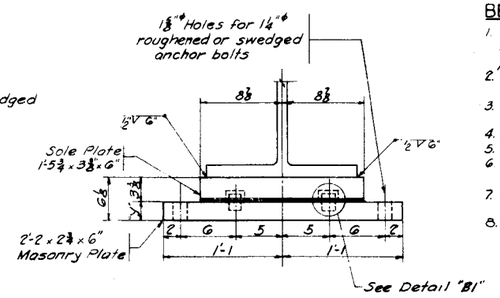
1. Stringers shall be field welded to sole plates after bearings have been set and aligned to their proper positions on the bridge seats.
2. Provide Hex nuts and lock washers for tops of anchor bolts
3. Thickness of sole plates is average, plate shall be beveled to fit slope of stringer.
4. Finish all bearing surfaces.
5. For "Y" dimension see Bridge Plans
6. Stiffener plates shown are end bearing stiffeners. See plans for intermediate stiffeners.
7. Bearings, including furnishing and installing anchor bolts, shall be paid for under Structural Steel, Item No. 132-51
8. For self-lubricating bronze plates, see Special Provisions.



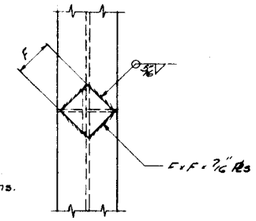
ELEVATION TYPES FA & FB

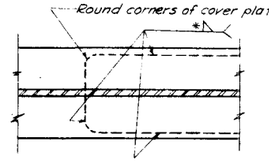


FIXED BEARING TYPE FA



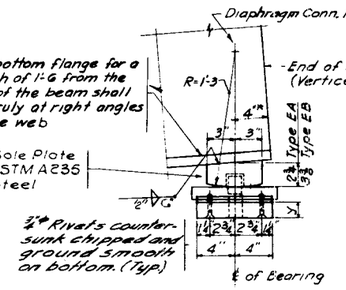
FIXED BEARING TYPE FB



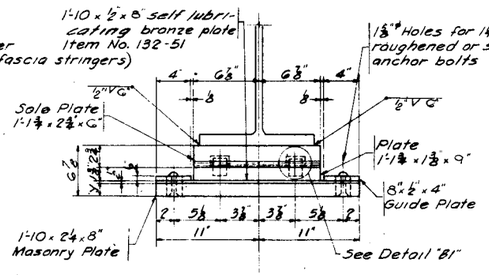


PLAN SECTION FOR PARTIAL LENGTH COVER PLATE NARROWER THAN FLANGE

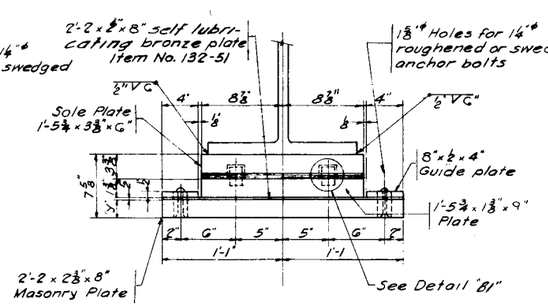
Pile	10"	12"	14"
F	G-½"	8"	10"
W	5½"	G-½"	8"



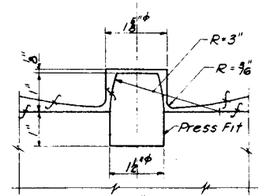
ELEVATION TYPES EA & EB



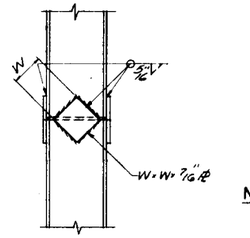
EXPANSION BEARING TYPE EA



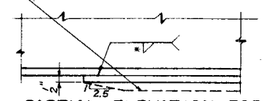
EXPANSION BEARING TYPE EB



DETAIL "B1" SECTION THRU DOWEL
Scale 6"=1'-0

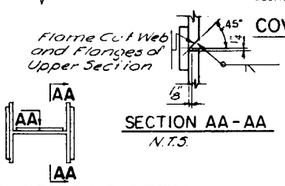


NOTE
Cover plates more than 1" thick shall be ground on bevel at ends.



PARTIAL ELEVATION FOR PARTIAL LENGTH COVER PLATE

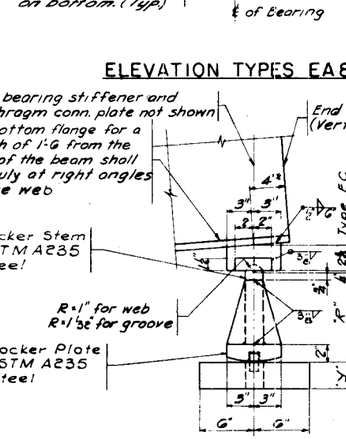
NOTE:
* For size of welds, see AWS Section 222(b). 5/16 min.



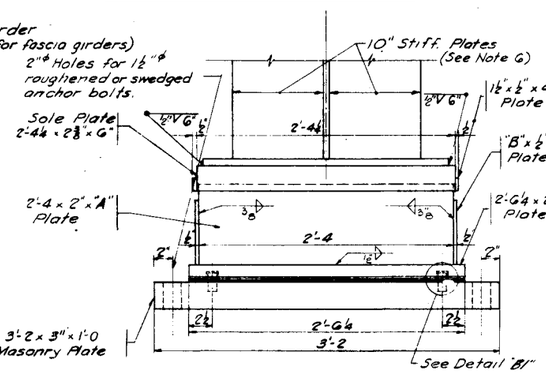
COVER PLATE DETAILS
N.T.S.

SECTION AA-AA
N.T.S.

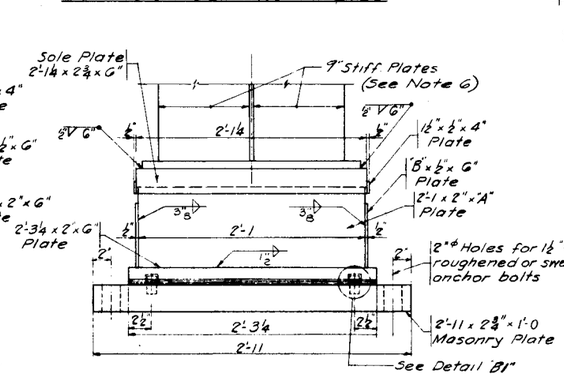
STEEL PILE SPLICING DETAIL
Scale: 1"=1'-0"



ELEVATION TYPES EC & ED

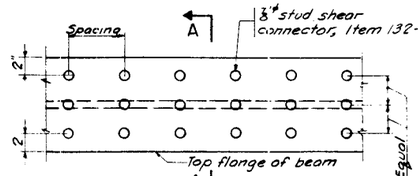


EXPANSION BEARING TYPE EC

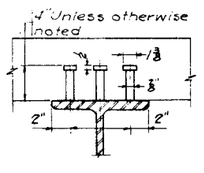


EXPANSION BEARING TYPE ED

Shoe	"R"	"A"	"B"
EC1	8	7"	5¼
ED1	8	7"	5¼
FC1	8	9"	7¼
FD1	8	9"	7¼

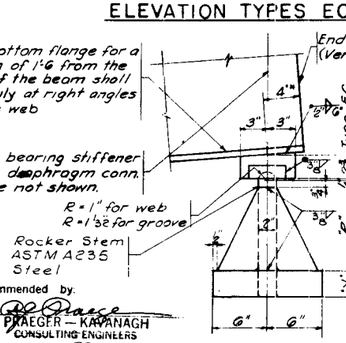


PARTIAL PLAN



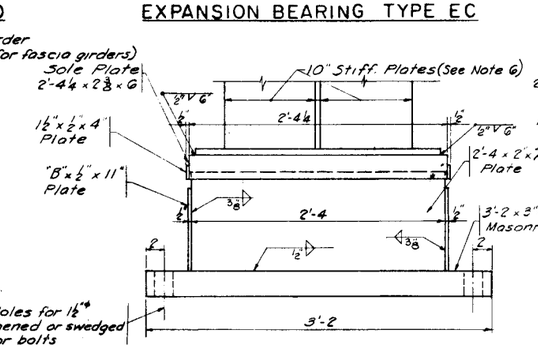
SECTION A-A

STUD SHEAR CONNECTOR DETAILS
Scale 1½" = 1'-0

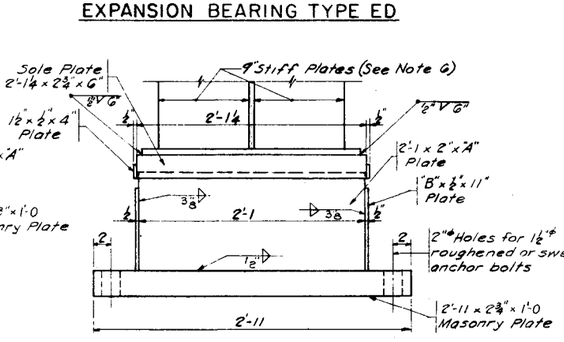


ELEVATION TYPES FC & FD

*Typical for Interior Stringers. For Fascia Stringers, see Bridge Plans



FIXED BEARING TYPE FC



FIXED BEARING TYPE FD

BEARING DETAILS
Scale: 1½" = 1'-0

NOTES:
1. For General Notes see Drawing No. ST-1
2. For Masonry Plate Details, see Drawing No. ST-6

Recommended by:
PRAEGER – KAVANAGH
CONSULTING ENGINEERS

In Charge of
Made by
Traced by
Checked by

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84
PT. II

TYPICAL BRIDGE DETAILS II
STRUCTURAL STEEL DETAILS

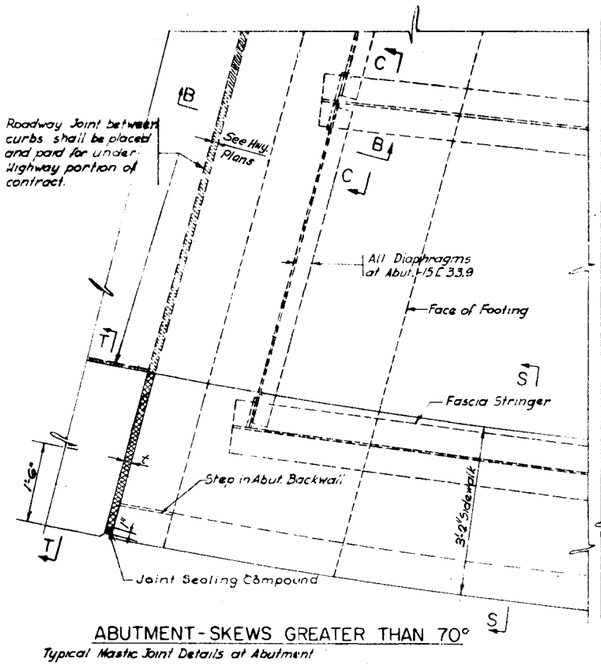
CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE As Shown
DATE Aug. 1961
DRAWING NO. ST-2
SHEET NO. 7

K-10-81

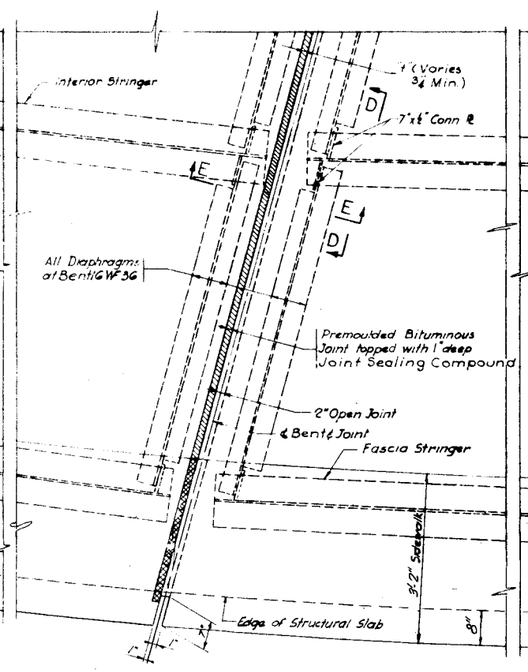
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 PT. II	19 61	8	77

CONTRACT NO. .....



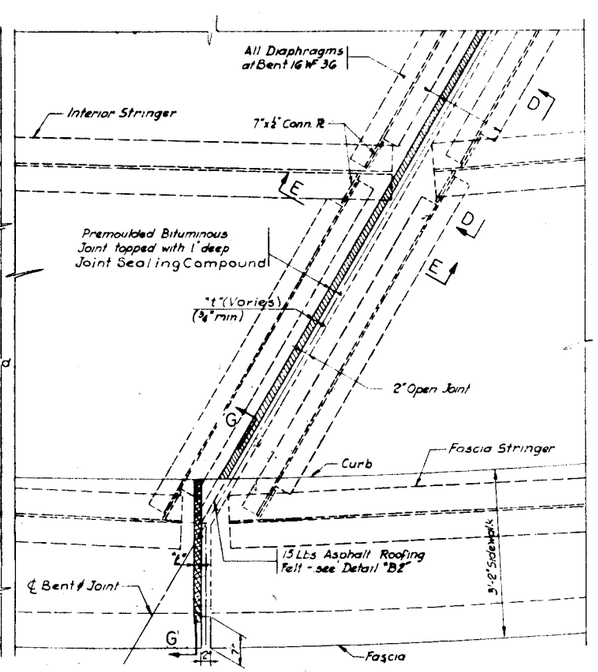
ABUTMENT - SKEWS GREATER THAN 70°

Typical Mastic Joint Details at Abutment



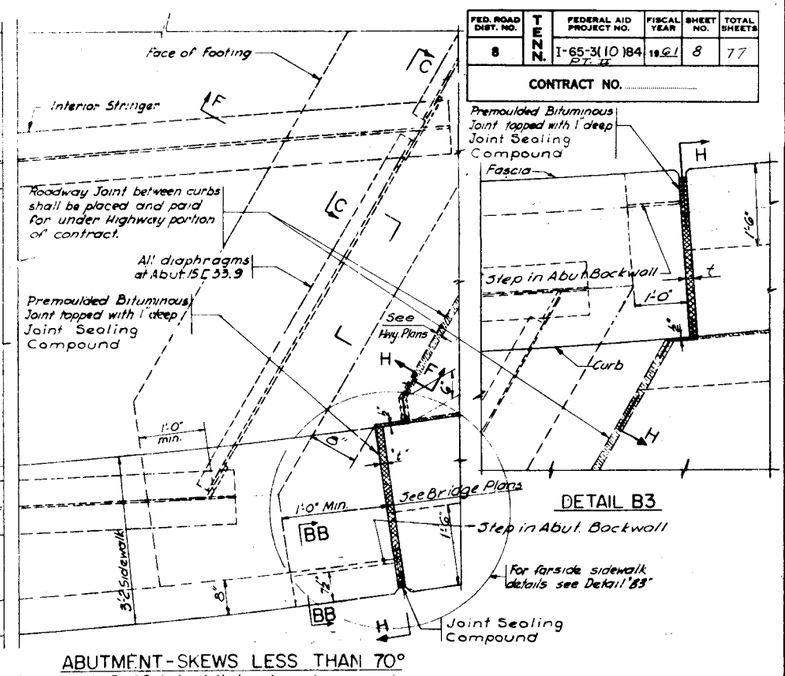
BENT - SKEWS GREATER THAN 70°

Typical Mastic Joint Details at Bent



BENT - SKEWS LESS THAN 70°

Typical Mastic Joint Details at Bent

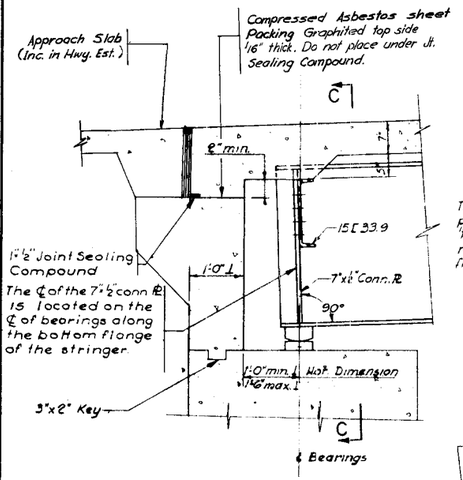


DETAIL B3

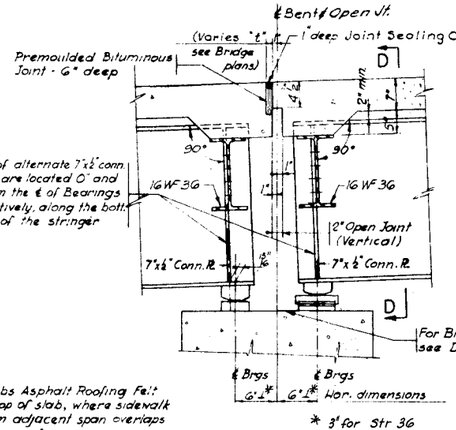
ABUTMENT - SKEWS LESS THAN 70°

Typical Mastic Joint Details at Abutment

TYPICAL PARTIAL PLAN

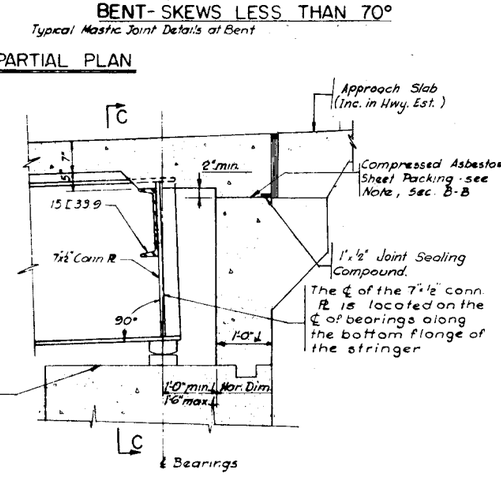


SECTION B-B



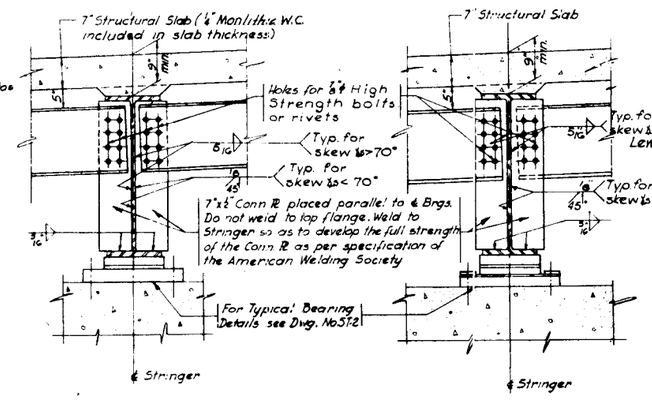
SECTION E-E

Typical connections for end diaphragms at Bent for stringers without stiffeners. For typ. connections for stringers with stiffeners see Details, Drawing No. ST-5



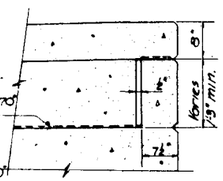
SECTION F-F

Typical connections for end diaphragms at Abutment for stringers without stiffeners. For typical connections for stringers with stiffeners, see Details, Drawing No. ST-5

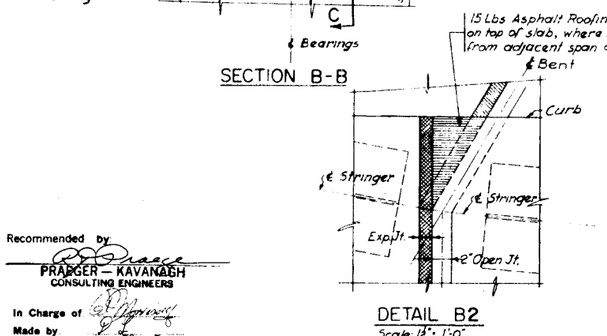


SECTION C-C

SECTION D-D

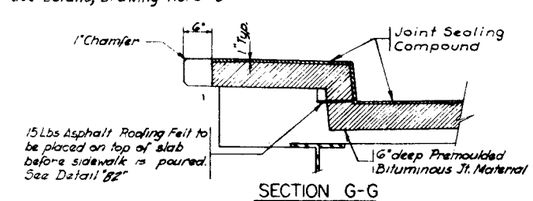


SECTION BB-BB

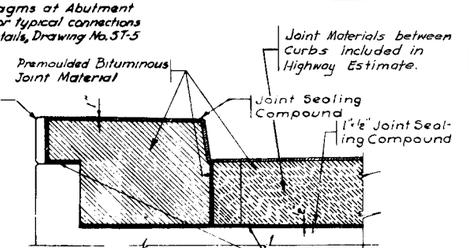


DETAIL B2

Scale; 1½" = 1'-0"



SECTION G-G



SECTION H-H

NOTES

1. For Intermediate Diaphragms, see: Dwg. No. ST-4.
2. For Diaph. Conn. for stringers with end bearing stiffeners see Drawing No. ST-5
3. For sections S-S and T-T see Dwg. No. ST-3
4. Bent slab and Abut. reinforcement not shown.
5. For General Notes see Drawing No. ST-1
6. All conn. ℞'s are minimum size.
7. For Dim. "t" see Bridge Plans.

Recommended by

PRAEGER - KAVANAGH
CONSULTING ENGINEERS

In Charge of

Made by

Traced by

Checked by

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

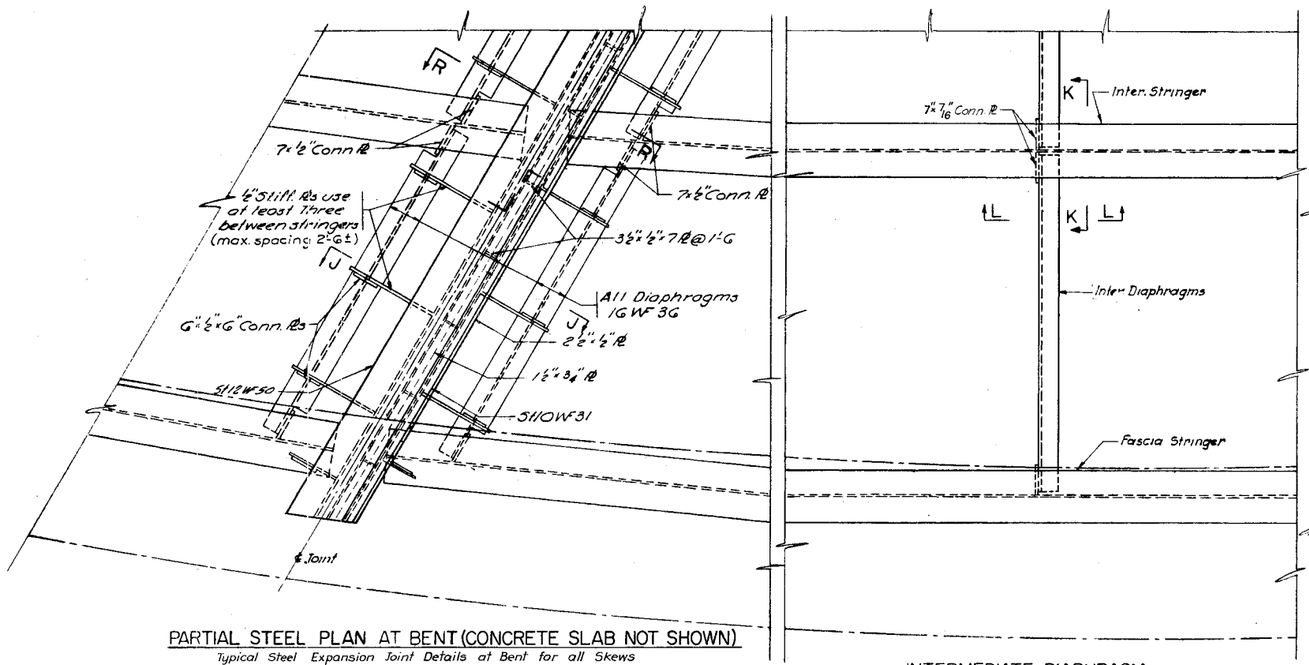
TYPICAL BRIDGE DETAILS III PARTIAL FRAMING PLANS AND MASTIC JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	¾" = 1'-0" & As shown
DATE	Aug. 1961
DRAWING NO.	ST-3
SHEET NO.	8

K-10-82

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)84 PT. II	19 61	9	77
CONTRACT NO.					

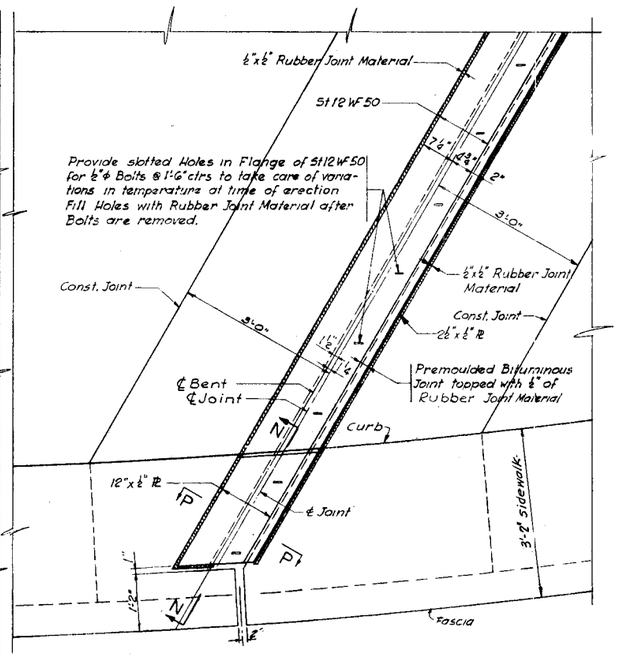


PARTIAL STEEL PLAN AT BENT (CONCRETE SLAB NOT SHOWN)

Typical Steel Expansion Joint Details at Bent for all Skews

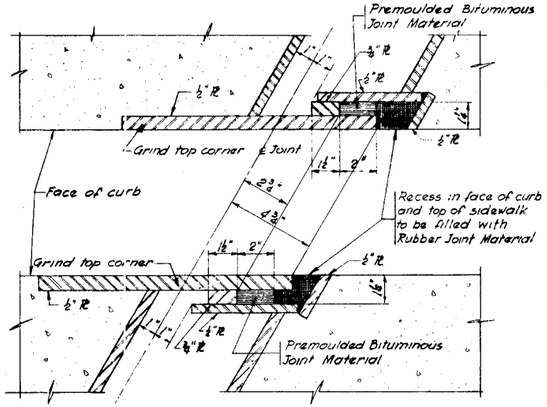
INTERMEDIATE DIAPHRAGM

Typical Intermediate Diaphragm framing detail.



PARTIAL PLAN AT BENT

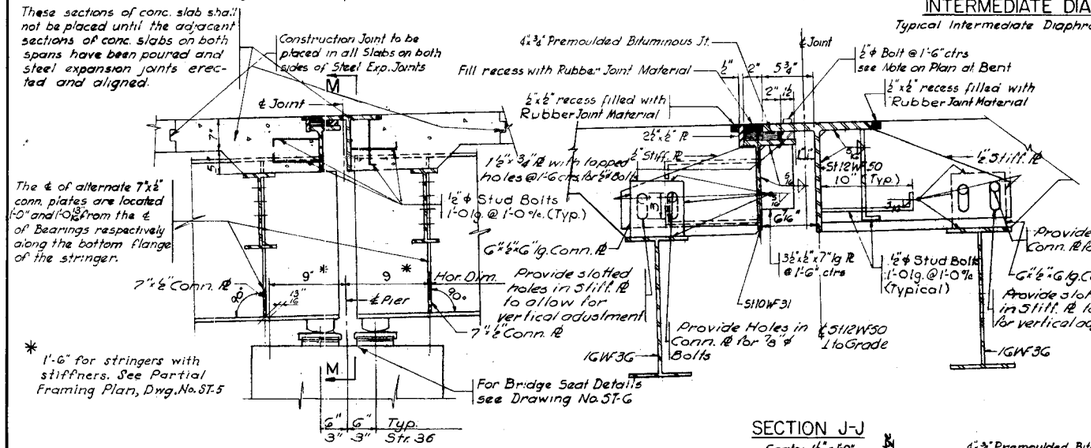
Typical steel Expansion Joint Details at Bent for all Skews.



PLAN SECTION THRU CURBS

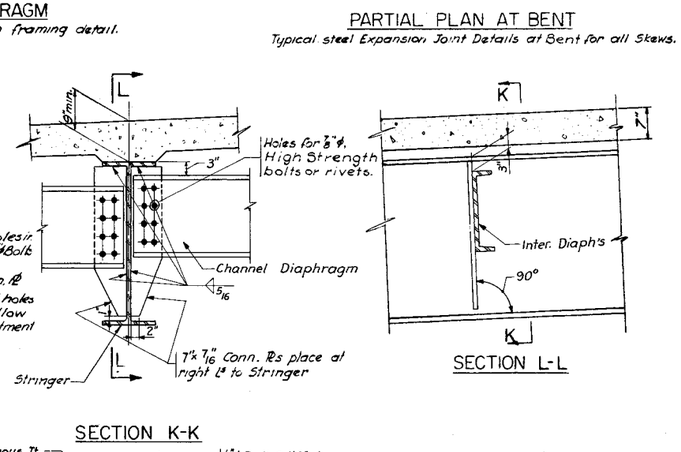
Scale: 3"=1'-0"

These sections of conc. slab shall not be placed until the adjacent sections of conc. slabs on both spans have been poured and steel expansion joints erected and aligned.

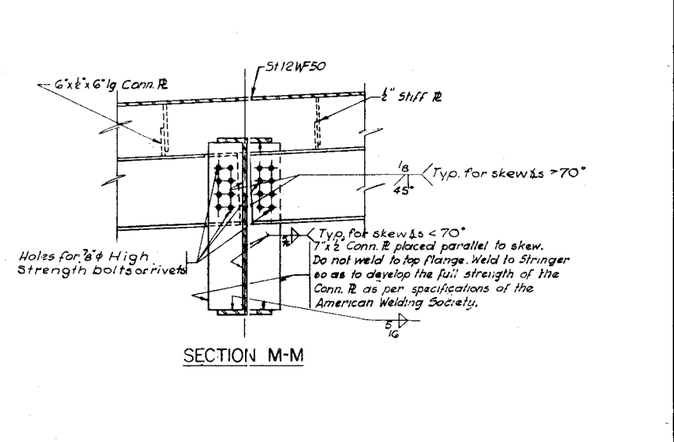


SECTION R-R

Typical connections for end diaphragms at Bent for stringers without stiffeners. For typical conn. for stringers with stiffeners, see Details Dwg. No. ST-5



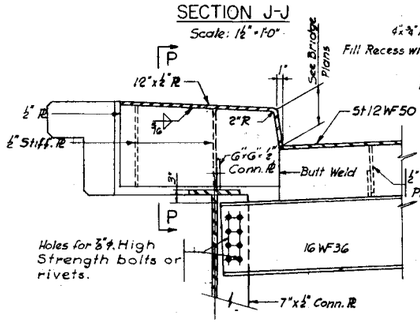
SECTION L-L



SECTION M-M

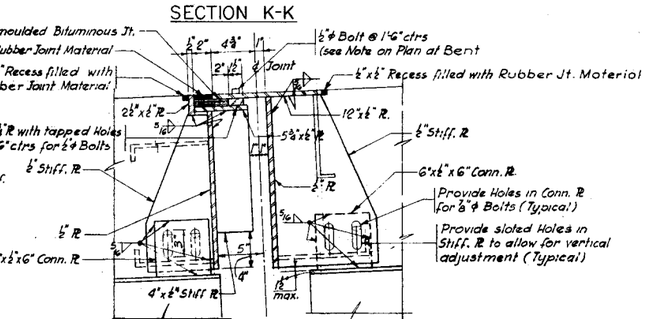
SECTION J-J

Scale: 1½"=1'-0"



SECTION N-N

SECTION K-K



SECTION P-P

Scale; 1½"=1'-0"

NOTES

1. For diaphragm conn. for stringers with end bearing stiffeners see Dwg. No. ST-5
2. For General Notes see Dwg. No. ST-1
3. Bent, Slab & Abutment reinforcement not shown.
4. All conn. Pl's are minimum size.

Recommended by: PRAEGER – KAVANAGH CONSULTING ENGINEERS

In Charge of ....

Made by ....

Traced by ....

Checked by ....

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

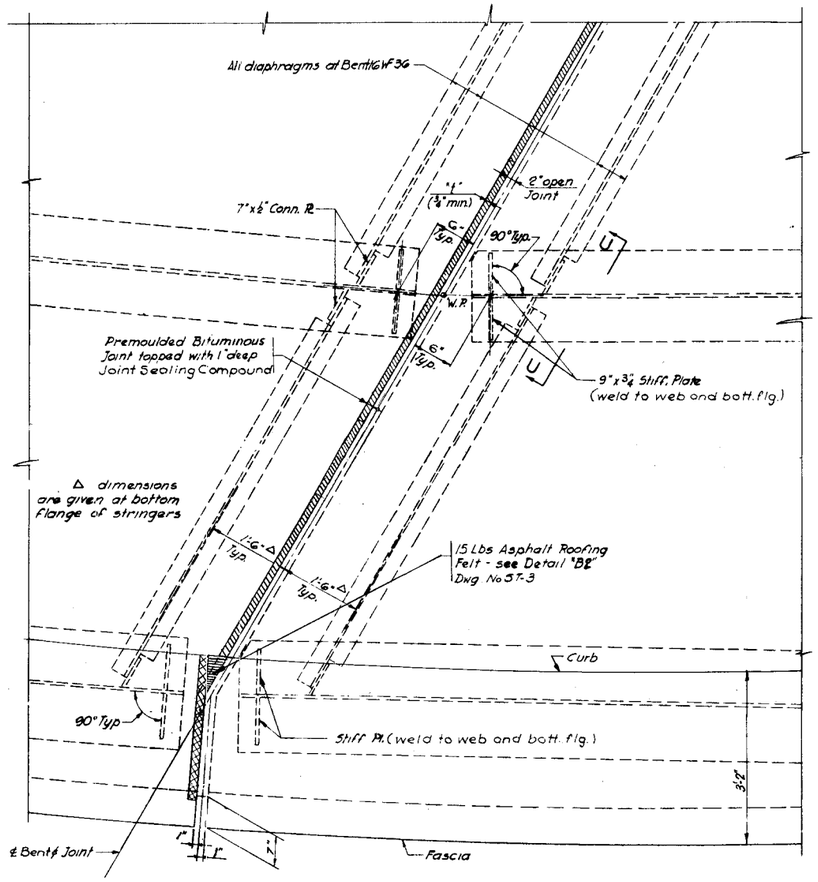
TYPICAL BRIDGE DETAILS IV
PARTIAL FRAMING PLANS AND STEEL JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N. Y.

SCALE 3"=1'-0" & As shown
DATE AUG. 1961
DRAWING NO. ST-4
SHEET NO. 9

K-10-83

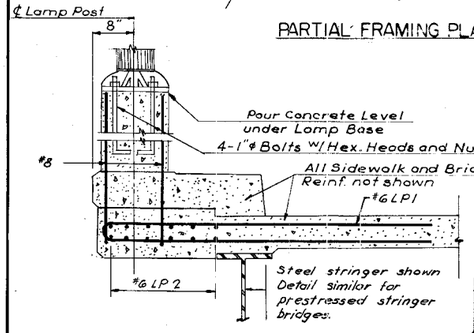
FED. ROAD DIST. NO.	T E N N.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 Pt. II	19 61	10	77
CONTRACT NO.					



PARTIAL FRAMING PLAN AT BENT FOR STR. WITH END STIFFENERS

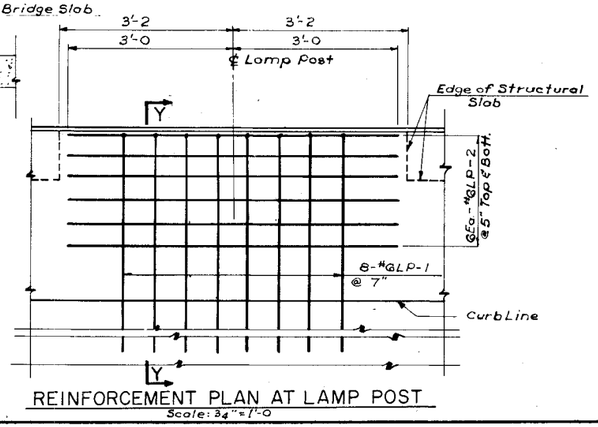
SKEWS LESS THAN 70°

Detail at Abutment similar



SECTION Y-Y

Scale: ¾"=1'-0



REINFORCEMENT PLAN AT LAMP POST

Scale: ¾"=1'-0

Rev. 8-25-61
Revised 8-25-61

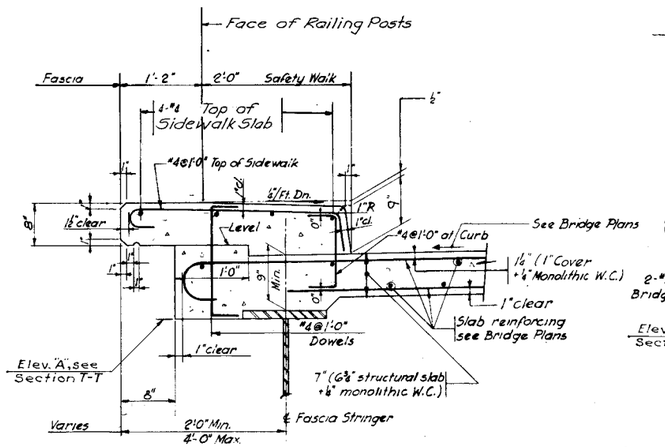
Recommended by: PRATGER – KAVANAGH CONSULTING ENGINEERS

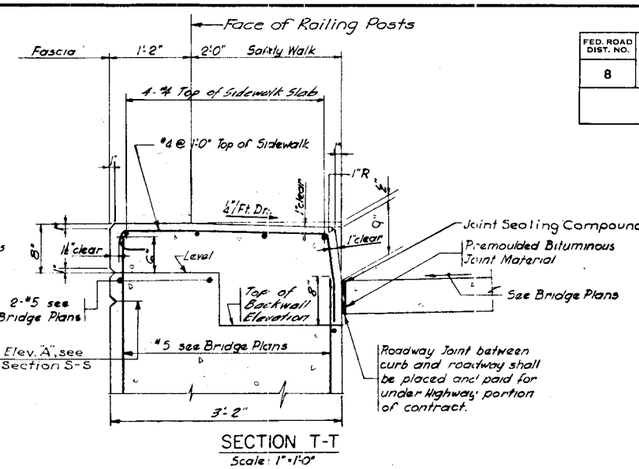
In Charge of

Made by

Traced by

Checked by



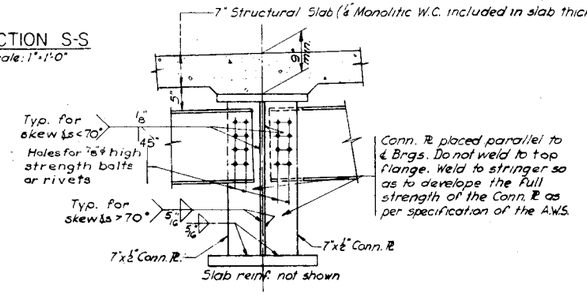


SECTION T-T

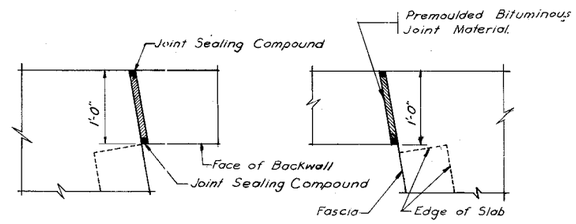
Scale: 1"=1'-0"

SECTION S-S

Scale: 1"=1'-0"



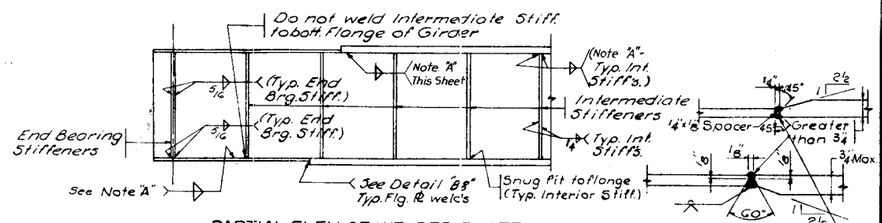
SECTION U-U



DETAIL AT ABUTMENT BETWEEN BRIDGES

Scale 1"=1'-0"

(Typical for Str. 28-Abut. 1, Str. 30 Abut. 2, Str. 32 & Str. 34
For Str. 28-Abut. 2 and Str. 30-Abut. 2 see Bridge Plans)



PARTIAL ELEV. OF WELDED PLATE GIRDER STRINGER SHOWING TYPICAL WELDS

For Diaphragm Conn. ℞ welds see Dwg. Nos. 5T3 & 5T4
N.T.S.

DETAIL B8

N.T.S.

Grind Welds on web side of Cover ℞s flush

NOTES.

1. For General Notes see Drawing No. 5T-1
2. For location of Section S-S and T-T see Drawing No. 5T-3
3. For additional details of railing posts supporting lamp posts see Dwg. No. R-1.

NOTE "A"

For size of welds see AWS Section 222 (b). 5/16" min. For Welding Specifications and radiographic inspection see Special Provision Regarding Welded Girder Structures.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84
PT. II

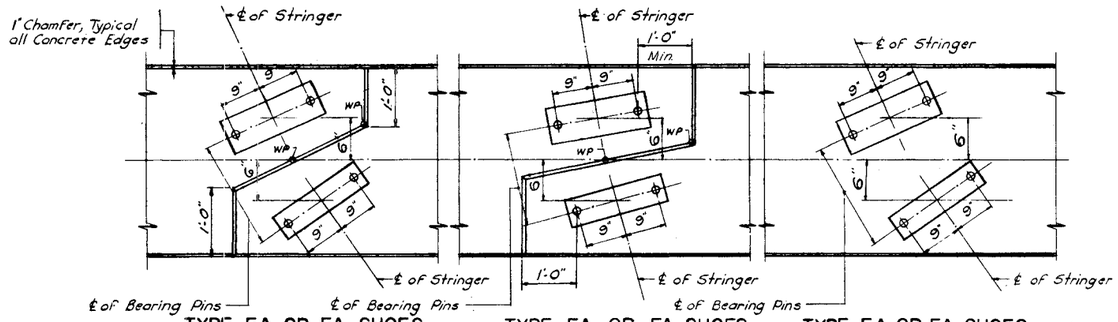
TYPICAL BRIDGE DETAILS V
PARTIAL FRAMING PLANS, MASTIC JOINT & RAILING DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE ¾"=1'-0" & As shown
DATE Aug. 1961
DRAWING NO. 5T-5
SHEET NO. 10

K-10-84

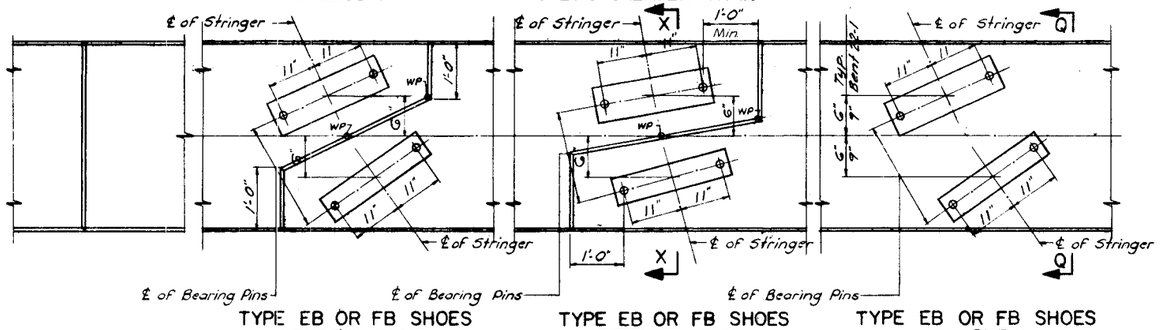
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3-(10)84 Pt. II	1961	11	77
CONTRACT NO.					



TYPE EA OR FA SHOES STEPPED BENT SKEWS LESS THAN 70°

TYPE EA OR FA SHOES STEPPED BENT SKEWS GREATER THAN 70°

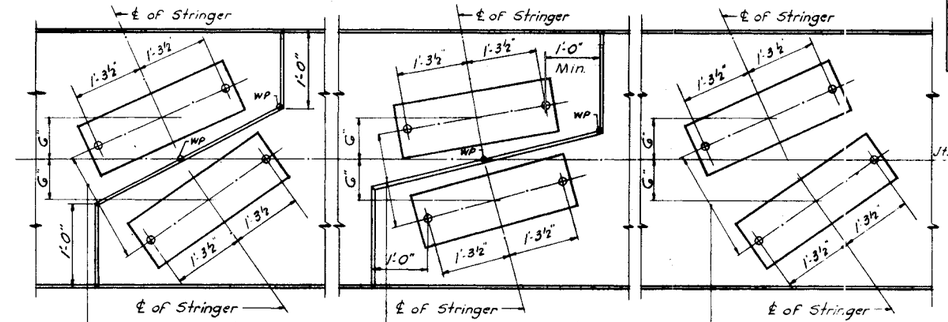
TYPE EA OR FA SHOES ANY SKEW



TYPE EB OR FB SHOES STEPPED BENT SKEWS LESS THAN 70°

TYPE EB OR FB SHOES STEPPED BENT SKEWS GREATER THAN 70

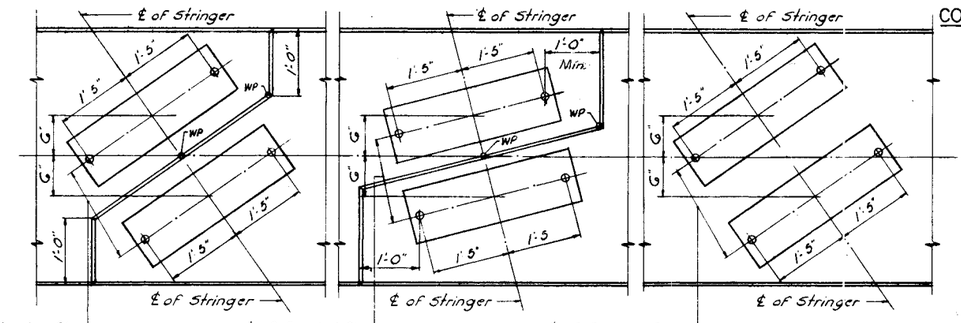
TYPE EB OR FB SHOES ANY SKEW



TYPE ED OR FD SHOES STEPPED BENT SKEWS LESS THAN 70°

TYPE ED OR FD SHOES STEPPED BENT SKEWS GREATER THAN 70°

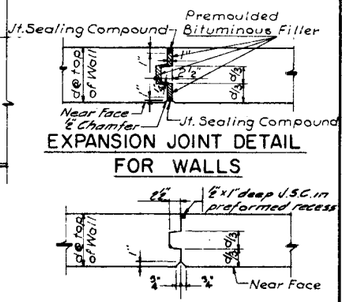
TYPE ED OR FD SHOES ANY SKEW



TYPE EC OR FC SHOES STEPPED BENT SKEWS LESS THAN 70°

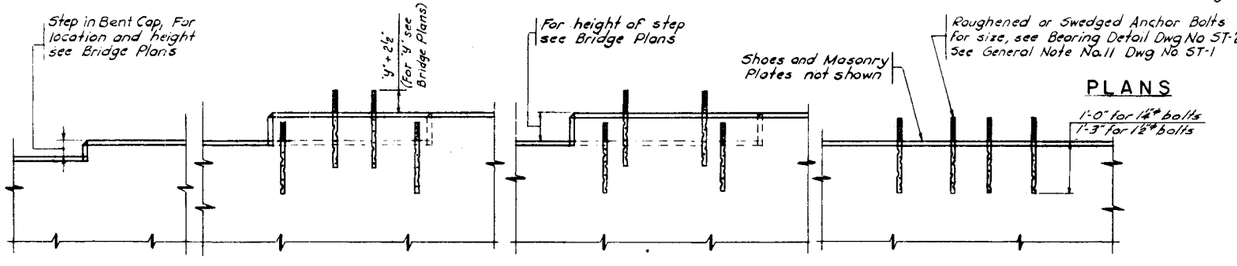
TYPE EC OR FC SHOES STEPPED BENT SKEWS GREATER THAN 70°

TYPE EC OR FC SHOES ANY SKEW

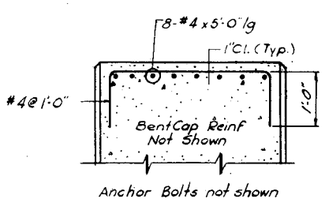


EXPANSION JOINT DETAIL FOR WALLS

CONSTRUCTION JOINT DETAIL FOR WALLS



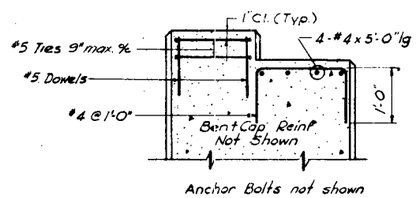
TYPICAL ELEVATION



Anchor Bolts not shown

SECTION Q-Q

Additional Reinforcement Under Masonry Plate



Anchor Bolts not shown

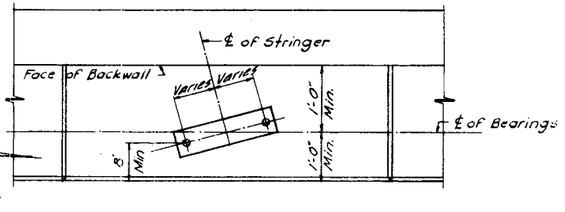
SECTION X-X

Additional Reinforcement Under Masonry Plate

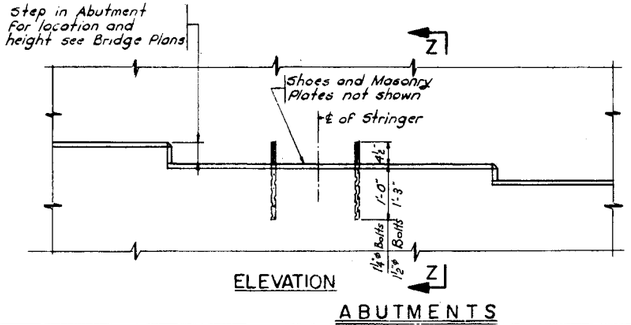
NOTES

1. For General Notes, see Drawing No. ST-1
2. For Bearing Details, see Drawing No. ST-2

BENTS

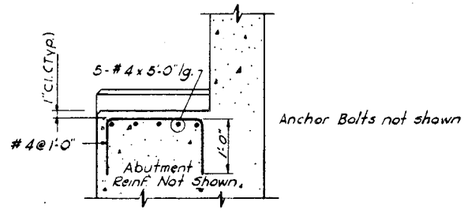


PLAN



ELEVATION

ABUTMENTS



Anchor Bolts not shown

SECTION Z-Z

Additional Reinforcement Under Masonry Plate

Recommended by:
PRAEGER — KAVANAGH
CONSULTING ENGINEERS

In Charge of .....
Made by .....
Traced by .....
Checked by .....

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 Pt. II

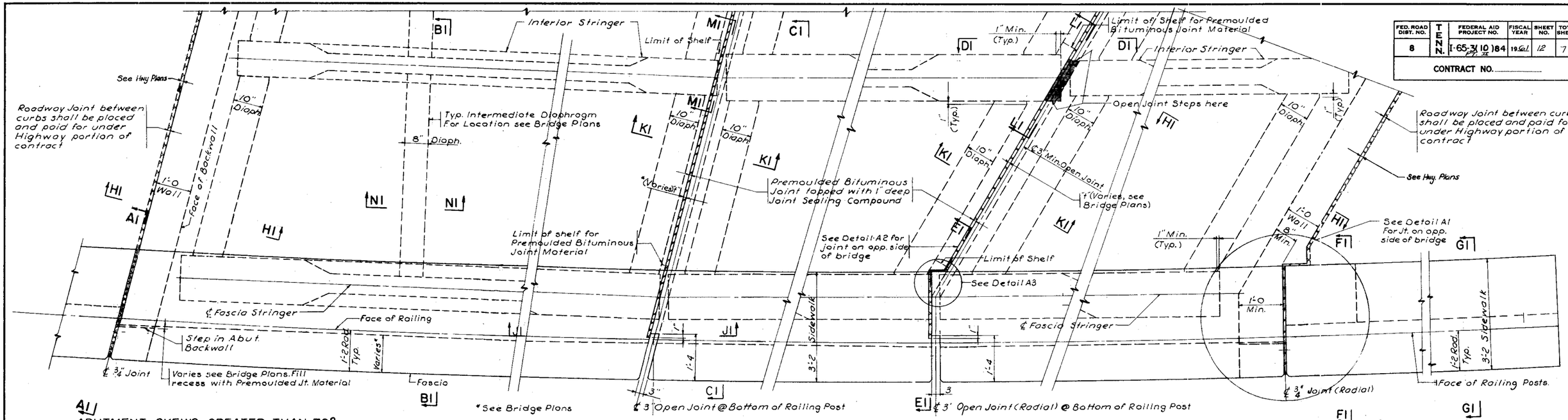
TYPICAL BRIDGE DETAILS VI
DETAILS OF MASONRY PLATES

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	¾" = 1'-0" & As Shown
DATE	Aug. 1961
DRAWING NO.	ST-6
SHEET NO.	11

K-10-85

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 PT. II	1961	12	77
CONTRACT NO.					



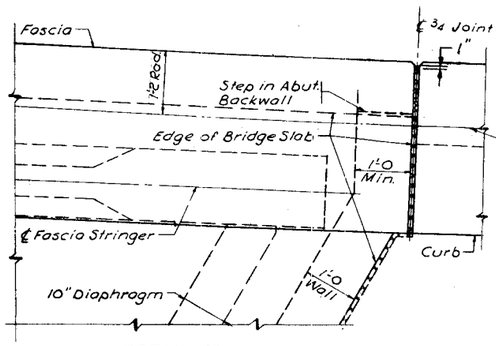
A1 ABUTMENT SKEWS GREATER THAN 70°

BENT SKEWS GREATER THAN 70°

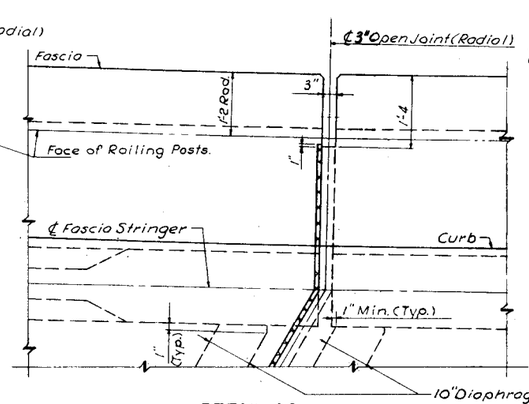
BENT SKEWS LESS THAN 70°

F1 ABUTMENT SKEWS LESS THAN 70°

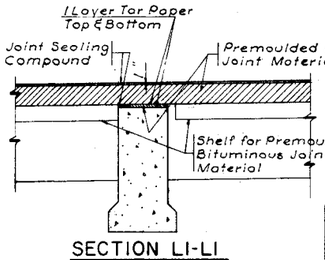
G1



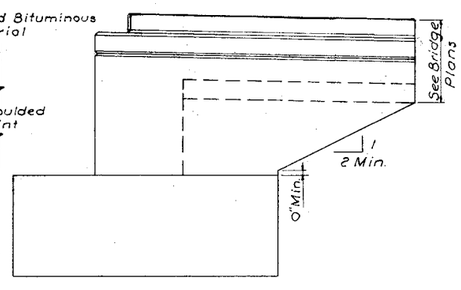
DETAIL A1
Scale: 3/4"=1'-0



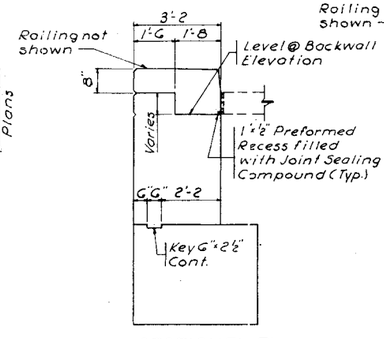
DETAIL A2
Scale: 3/4"=1'-0



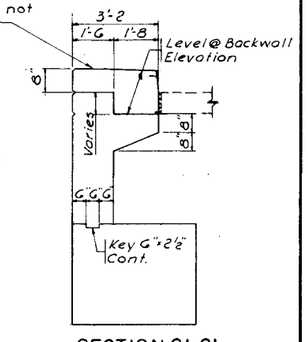
SECTION L1-L1
Scale: 1/2"=1'-0



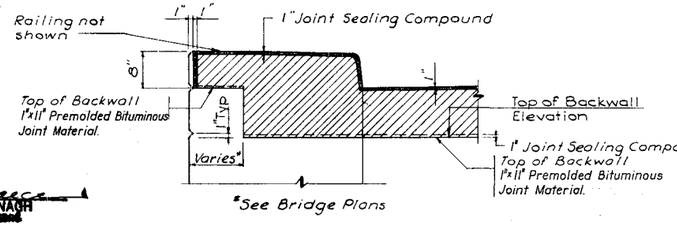
TYPICAL WINGWALL ELEVATION
Scale: 3/8"=1'-0



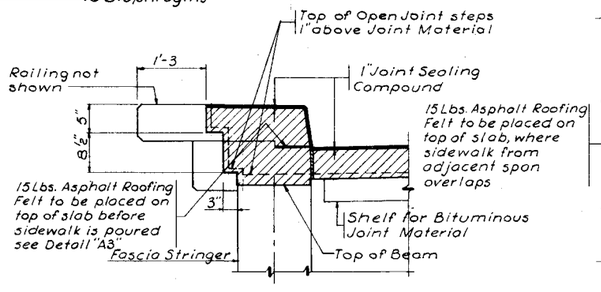
SECTION F1--F1
Scale: 3/8"=1'-0



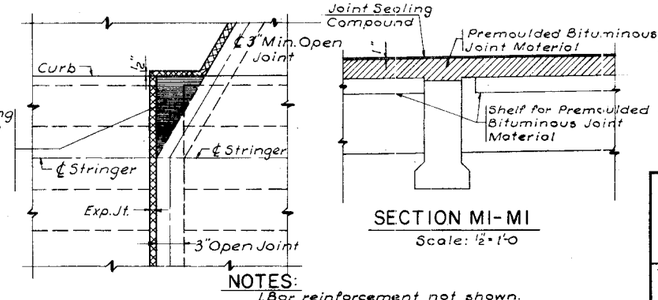
SECTION G1-G1
Scale: 3/8"=1'-0



SECTION A1-A1
Scale: 3/4"=1'-0



SECTION E1-E1
Scale: 3/4"=1'-0



DETAIL A3
Scale: 1/2"=1'-0

SECTION M1-M1
Scale: 1/2"=1'-0

NOTES:
1. Bar reinforcement not shown.
2. For Sections B1-B1, C1-C1, D1-D1, H1-H1, K1-K1, J1-J1 & N1-N1, see Dwg. No. CT-2

Recommended by:
PRAEGER — KAVANAGH
CONSULTING ENGINEERS
In Charge of
Made by
Traced by
Checked by

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

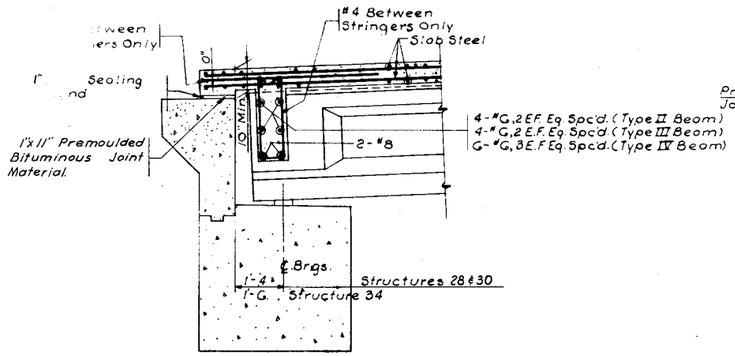
TYPICAL CONCRETE BRIDGE DETAILS I
PARTIAL FRAMING PLANS
AND MASTIC JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

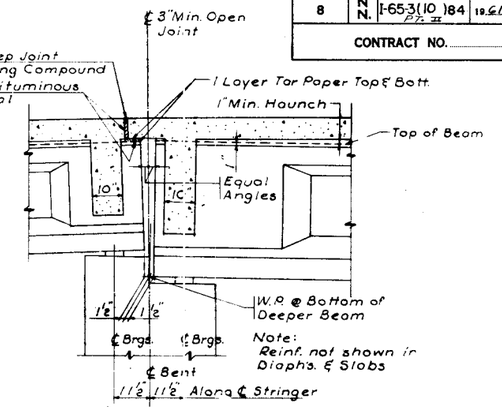
SCALE 3/4"=1'-0" & As Shown
DATE Aug. 1961
DRAWING NO. CT-1
SHEET NO. 12

K-10-86

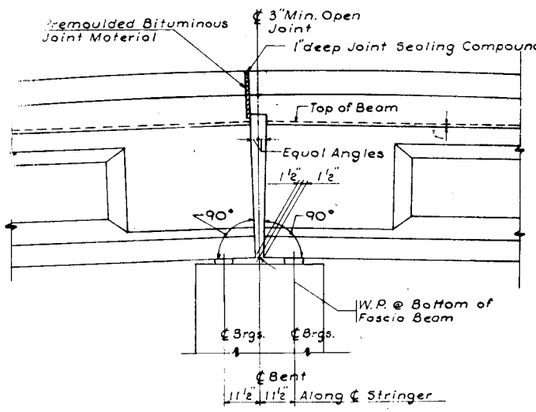
FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 Pt. II	1961	13	77
CONTRACT NO.					



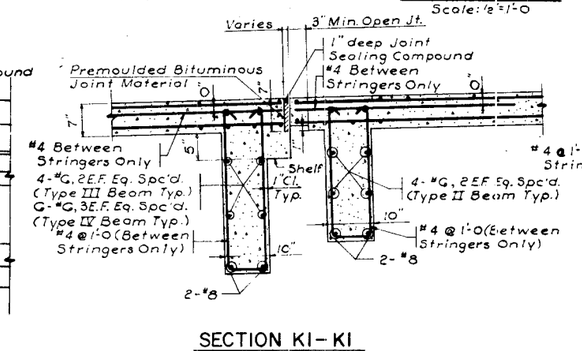
SECTION HI-HI
Scale: 1/2"=1'-0



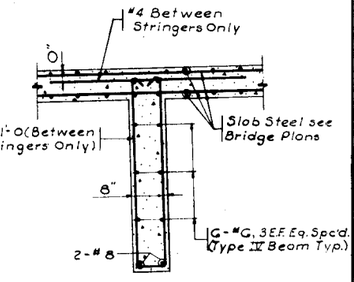
SECTION DI-DI
Scale: 1/2"=1'-0



SECTION JI-JI
Scale: 1/2"=1'-0

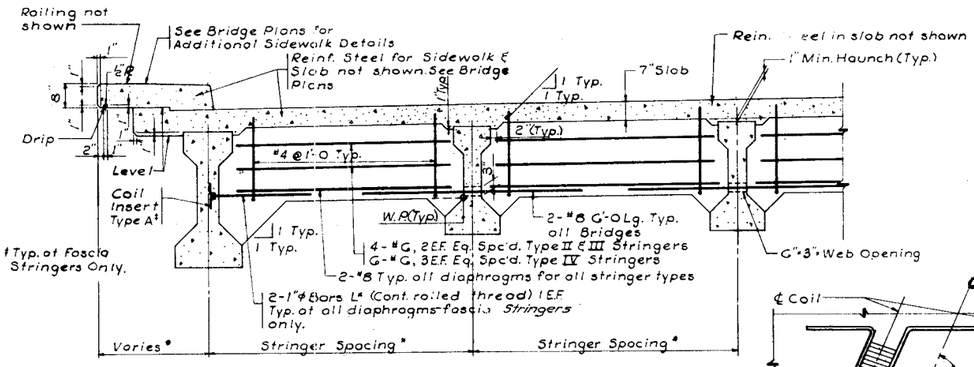


SECTION KI-KI
Scale: 3/4"=1'-0



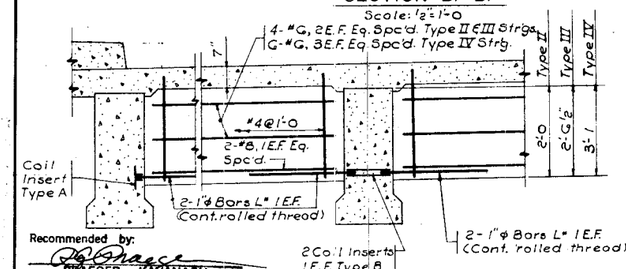
Reinf. Steel for Types II & III Diaph's. similiar to Section BI-BI

SECTION NI-NI
Scale: 3/4"=1'-0



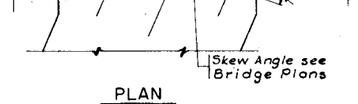
*See Bridge Plans

SECTION BI-BI
Scale: 1/2"=1'-0

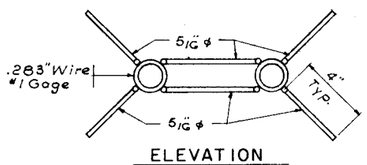


*See Bridge Plans

SECTION CI-CI
Scale: 1/2"=1'-0

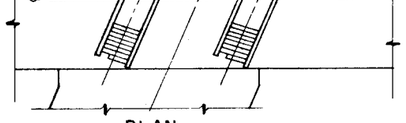


PLAN

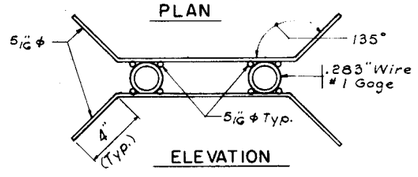


ELEVATION

TYPE A



PLAN



ELEVATION

TYPE B

COIL INSERT DETAILS
N.T.S.

Recommended by: Praeger-Kavanagh Consulting Engineers

In Charge of J. D. Mooney
Made by J. E.
Traced by J. E.
Checked by J. H.

NOTES:
1. Abutment & stringer reinforcement not shown.
2. For locations of Sections C1-C1, D1-D1, H1-H1, J1-J1, K1-K1, N1-N1 & B1-B1, see Dwg. No. CT-1

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 Pt. II

TYPICAL CONCRETE BRIDGE DETAILS II
PARTIAL FRAMING PLAN, STRINGER, DIAPHRAGM, MALL GUIDE RAIL & MASTIC JOINT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	As Shown
DATE	Aug. 1961
DRAWING NO.	CT-2
SHEET NO.	13

K-10-87

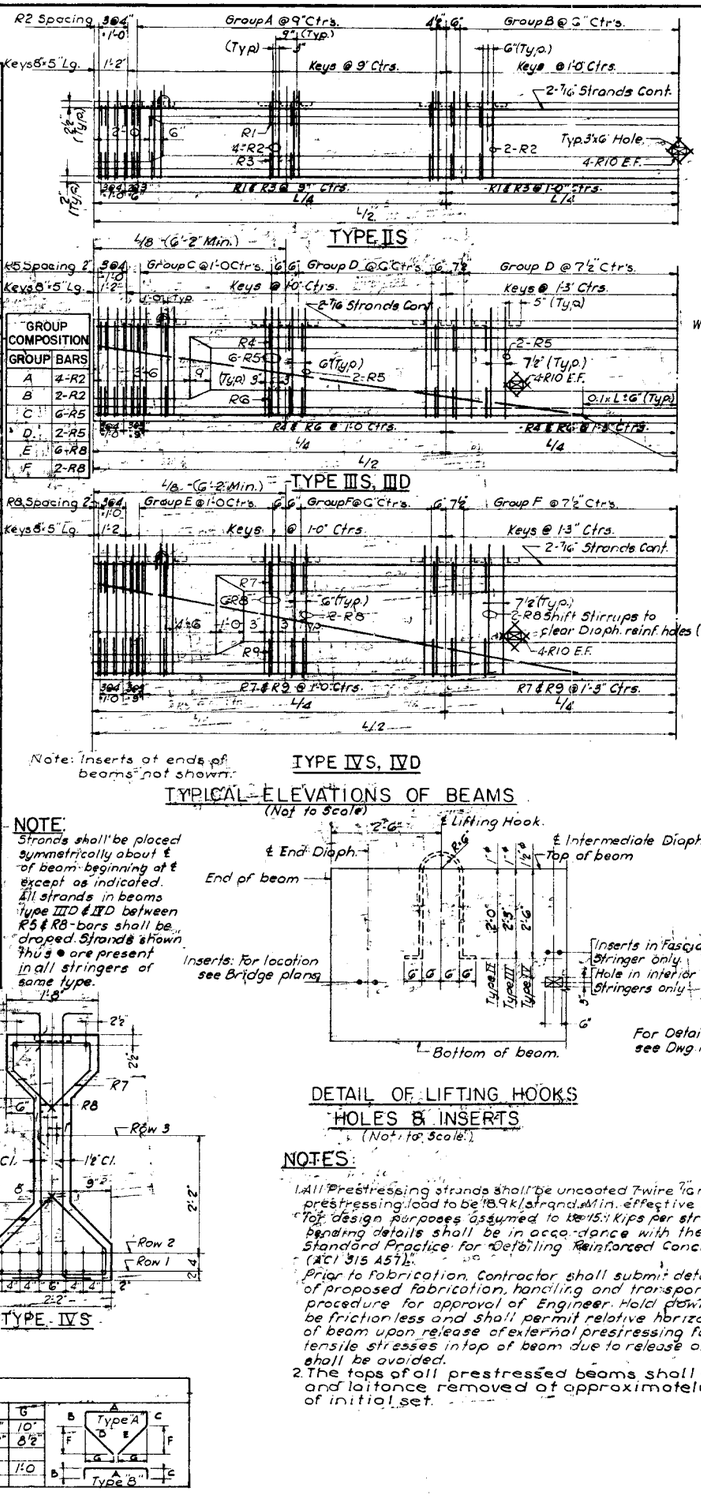
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)84 P.T. II	19 61	14	77
CONTRACT NO.					

BEAM SCHEDULE

STR. NO.	STRINGER MK.	NO.	HOR. LGTH C-C BRG.	TYPE	MAX. MOMENT STRINGER D.L.	7"SLAB & DIAPHR'M.	SUP. D.L.*	FT. KIPS LL + IMP	TOT. MOM.	MAX. SHEAR KIPS	INITIAL FORCE KIPS	FINAL FORCE KIPS	TOTAL NO. OF 7/16" STRANDS	NO. OF 7/16" STRANDS PER ROW 1	2	3	4	5	6	7	8	9	TOP	NO. OF DRAPED STRANDS
27	51	14	27'-3 9/16"	II5	36	58	29	230	353	57	227	181	12	4	2	4	–	–	–	–	–	–	2	–
	52	2	27'-3 9/16"	II5	36	75	29	332	472	77	302	242	16	4	4	4	2	–	–	–	–	–	2	–
	53	2	27'-3 9/16"	III5	54	70	29	46	199	29	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	54	14	44'-6 5/8"	II5	96	155	78	534	763	75	529	423	28	8	8	4	2	–	2	2	–	–	2	–
	55	2	44'-6 5/8"	III5	146	187	78	124	535	48	378	302	20	4	4	4	2	2	2	–	–	–	2	–
	56	2	44'-6 5/8"	III5	146	203	78	615	942	89	529	423	28	6	6	4	4	2	2	–	–	–	2	–
	57	4	61'-7 1/8"	IIID	278	357	148	236	1019	66	567	454	30	10	10	6	–	–	–	–	–	–	2	4
	58	28	61'-7 1/8"	IIID	278	295	148	668	1389	95	680	544	36	10	10	8	6	–	–	–	–	–	2	6
	59	8	61'-7 1/8"	IIID	278	386	148	790	1602	111	756	605	40	10	10	10	8	–	–	–	–	–	2	8
28	510	10	30'-0 1/8"	II5	43	89	28	307	467	72	302	242	16	4	4	4	2	–	–	–	–	–	2	–
	511	4	30'-0 1/8"	III5	66	76	28	236	406	61	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	512	10	36'-9 13/16"	II5	65	131	42	388	626	80	454	363	24	8	6	2	2	2	2	–	–	–	2	–
	513	4	36'-9 13/16"	III5	99	113	42	314	568	71	340	272	18	4	4	2	2	2	–	–	–	–	2	–
	514	4	56'-0 1/8"	III5	230	226	97	442	995	75	605	484	32	8	6	4	4	2	2	2	2	–	2	–
	515	24	56'-0 1/8"	III5	230	308	97	709	1344	105	794	635	42	8	8	8	6	2	2	2	2	2	2	–
30	516	10	37'-10 3/16"	II5	69	138	45	405	657	81	454	363	24	8	6	2	2	2	2	–	–	–	2	–
	518	4	37'-10 3/16"	III5	105	120	45	316	586	70	378	302	20	4	4	4	2	2	2	–	–	–	2	–
	519	10	42'-5 3/4"	II5	87	172	56	482	797	86	567	454	30	8	8	6	2	–	2	2	–	–	2	–
	520	4	42'-5 3/4"	III5	132	146	56	383	717	76	416	333	22	4	4	4	4	2	–	–	2	–	2	–
	521	4	56'-10 1/4"	III5	237	229	100	448	1014	76	605	484	32	8	6	4	4	2	2	2	–	–	2	–
	522	24	56'-10 1/4"	III5	237	314	100	720	1371	106	794	635	42	8	8	8	6	2	2	2	2	2	2	–
34	546	10	34'-8 7/16"	II5	58	93	52	343	546	62	378	302	20	6	4	4	2	2	–	–	–	–	2	–
	523	4	34'-8 7/16"	III5	86	76	52	235	453	58	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	524	10	40'-11 5/16"	II5	81	146	72	432	731	80	529	423	26	8	6	4	2	2	2	–	–	–	2	–
	525	4	40'-11 5/16"	III5	123	117	72	301	613	65	378	302	20	4	4	4	2	2	2	–	–	–	2	–
	526	20	66'-5 3/16"	IIID	321	381	189	818	1709	105	756	605	42	10	10	10	8	2	–	–	–	–	2	10
	527	8	66'-5 3/16"	IIID	321	304	189	602	1416	89	718	575	38	10	10	10	6	–	–	–	–	–	2	6
38	528	4	27'-6 1/4"	II5	56	68	36	280	440	70	265	212	14	4	2	2	2	–	–	–	–	–	2	–
	529	2	27'-6 1/4"	II5	78	68	36	93	275	42	302	242	16	6	6	2	–	–	–	–	–	–	2	–
	530	4	28'-6 7/16"	III5	60	73	38	291	463	73	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	531	2	28'-6 7/16"	IV5	84	73	39	98	294	43	302	242	16	6	6	6	2	–	–	–	–	–	2	–
	532	8	71'-0 11/16"	IVD	320	441	241	449	1651	94	718	575	38	12	12	12	–	–	–	–	–	–	2	6
	533	16	71'-0 11/16"	IVD	320	450	241	968	2179	129	869	696	46	12	12	12	8	–	–	–	–	–	2	8
42A	534	2	54'-6 3/4"	III5	218	200	123	400	941	74	567	454	30	8	6	4	4	2	–	–	2	2	2	–
	535	7	54'-6 3/4"	III5	218	298	123	705	1344	108	794	635	42	8	8	8	6	2	2	2	2	2	2	–
42B	536	2	54'-5 1/4"	III5	218	200	123	400	941	74	567	454	30	8	6	4	4	2	–	–	2	2	2	–
	537	7	54'-5 1/4"	III5	218	298	123	705	1344	108	794	635	42	8	8	8	6	2	2	2	2	2	2	–
44A	538	14	25'-3 1/2"	II5	31	54	18	234	337	58	227	181	12	4	2	4	–	–	–	–	–	–	2	–
	539	2	25'-3 1/2"	II5	31	64	18	266	379	66	265	212	14	4	4	4	2	2	–	–	–	–	2	–
	540	2	25'-3 1/2"	III5	47	46	18	148	254	43	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	541	16	36'-0 1/2"	II3	62	130	36	399	627	81	416	333	22	6	6	4	2	–	2	–	–	–	2	–
	542	2	36'-0 1/2"	III5	95	92	36	222	445	55	265	212	14	4	2	2	2	2	–	–	–	–	2	–
	543	4	55'-7"	III5	225	220	87	426	958	73	605	484	32	8	6	4	4	2	2	2	2	2	2	–
	544	28	55'-7"	III5	225	262	87	650	1224	95	718	574	38	8	8	6	6	–	2	2	2	2	2	–
	545	4	55'-7"	IIID	225	310	87	740	1362	106	794	635	42	8	8	8	6	2	2	2	2	2	2	–

N.I.C.

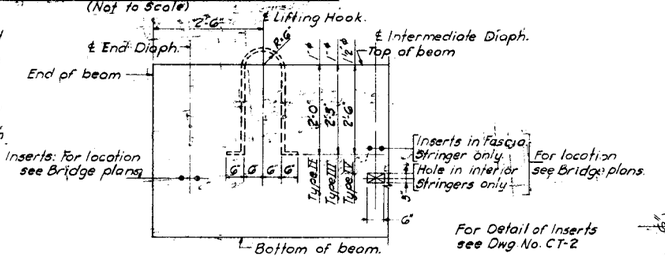
* Superimposed D.L.: Sidewalk, Railing and 25 p.s.f. Future Wearing Surface.



GROUP COMPOSITION	
GROUP	BARS
A	4-R2
B	2-R2
C	6-R5
D	2-R5
E	6-R8
F	2-R8

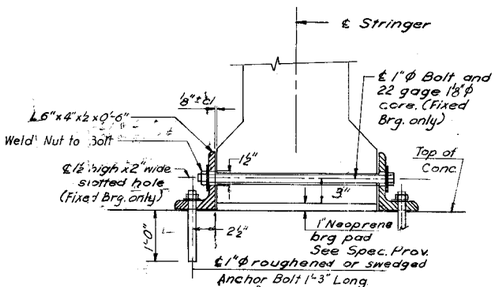
Note: Inserts at ends of beams not shown.

TYPICAL ELEVATIONS OF BEAMS
(Not to Scale)

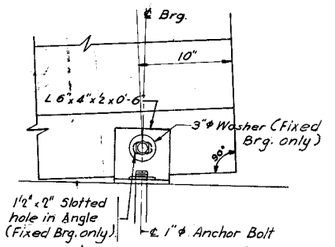


DETAIL OF LIFTING HOOKS HOLES & INSERTS
(Not to Scale)

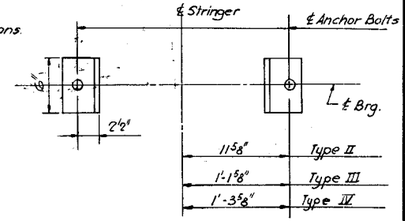
NOTE:
Strands shall be placed symmetrically about ℄ of beam beginning at ℄ except as indicated. All strands in beams Type IIID & IVD between R5 & R8 bars shall be draped. Strands shown thus • are present in all stringers of same type.



TYPICAL SECTION

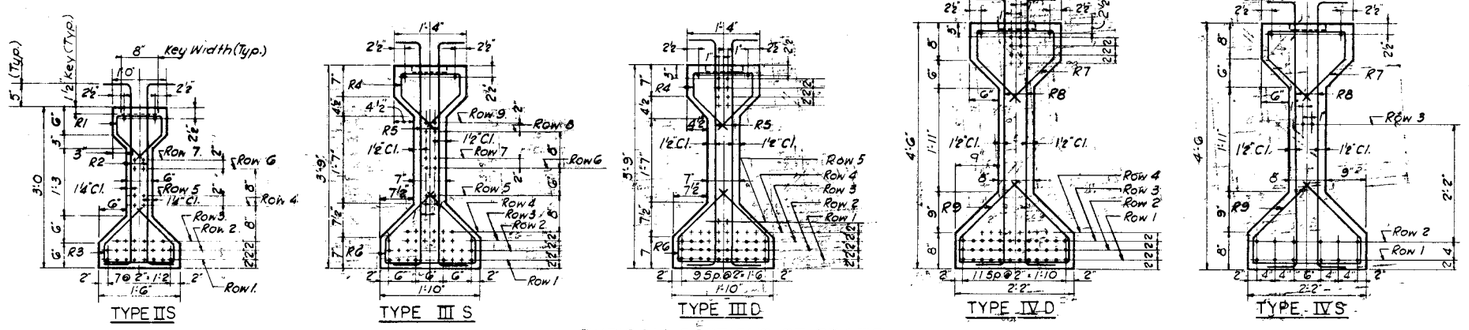


ELEVATION



PLAN

BEARING DETAILS
Scale: 1 1/2"=1'-0"



TYPICAL SECTIONS OF BEAMS
Scale: 3/4"=1'-0"

NOTES:
1. All Prestressing strands shall be uncoated 7-wire 7/16" nominal dia. Initial prestressing load to be 189 k/strand. Min. effective prestressing load for design purposes assumed to be 175 kips per strand. Reinforcing bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures (ACI 315 A57)."
Prior to fabrication, Contractor shall submit detailed description of proposed fabrication, handling and transportation procedure for approval of Engineer. Hold down device shall be friction less and shall permit relative horizontal movement of beam upon release of external prestressing force. Additional tensile stresses in top of beam due to release of hold-down shall be avoided.
2. The tops of all prestressed beams shall be roughened and laitance removed at approximately the time of initial set.

BAR SCHEDULE

MK.	SIZE	TYPE	LENGTH	A	B	C	D	E	F	G
R1	#3	A	2'-5"	9"	8 1/2"	3 1/2"	G/2	G/2	4 1/2"	4 1/2"
R2	#4	B	4'-4"	3'-4"	G"	G"				
R3	#3	A	3'-9"	1'-3 1/2"	2 3/4"	2 3/4"	1'-0"	1'-0"	8 1/2"	8 1/2"
R4	#3	A	3'-6"	1'-1"	4 1/2"	4 1/2"	10"	10"	7"	7"
R5	#4	B	5'-1"	4'-1"	G"	G"				

Type "A" Type "B"

BAR SCHEDULE

MK.	SIZE	TYPE	LENGTH	A	B	C	D	E	F	G
R6	#3	A	4'-9"	1'-7 1/2"	4 3/4"	4 3/4"	1'-2"	1'-2"	10"	10"
R7	#3	A	4'-4"	1'-5"	5 1/2"	5 1/2"	1'-0"	1'-0"	8 1/2"	8 1/2"
R8	#4	B	5'-10"	4'-10"	G"	G"				
R9	#3	A	5'-7"	1'-11 1/2"	4 3/4"	4 3/4"	1'-5"	1'-5"	1'-0"	1'-0"
R10	#3	Str.	1'-6"							

Type "A" Type "B"

Recommended by: PRAEGER – KAVANAGH CONSULTING ENGINEERS

In Charge of: J.F. Mooney

Made by: B.C.

Traced by: B.C.

Checked by: S.K.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 P.T. II

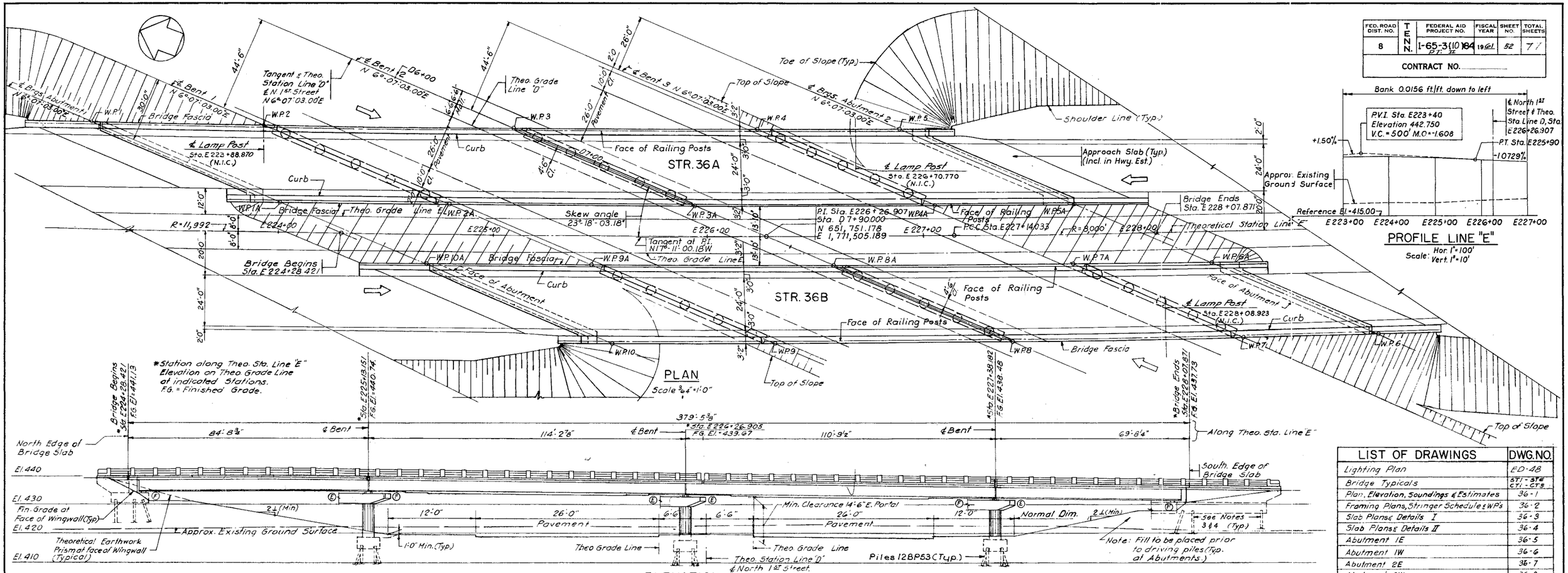
TYPICAL CONCRETE BRIDGE DETAILS III
BEAM & BEARING DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE: As Shown
DATE: Aug. 1961
DRAWING NO. CT-3
SHEET NO. 14

K-10-88

FED. ROAD DIST. NO.	T E N N.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 PT. II	1961	52	71
CONTRACT NO.					



ELEVATION

Scale 1/16" = 1'-0"

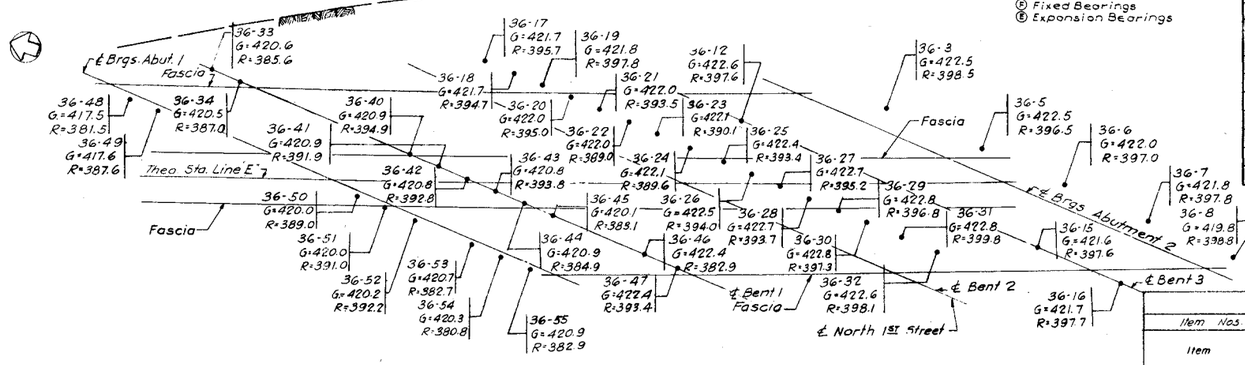
PROFILE LINE "E"

Scale: Hor. 1" = 100'
Vert. 1" = 10'

*Station along Theo. Sta. Line "E" Elevation on Theo. Grade Line at indicated Stations. F.G. = Finished Grade.

LEGEND

(F) Fixed Bearings
(E) Expansion Bearings



SOUNDING SKETCH

scale 1" = 40'

Legend:
G = Ground Elevation
R = Elev.-Top of Rock Sounding.

ESTIMATED QUANTITIES – STR. 36A

Item Nos.	17-2	17-4	135-4	135-12	132-51		704	137-4		800-36A
Item	Excavation-C.Y.		Concrete Class A Cu. Yds.	Steel-Lbs.			Conc. Handrailg. Lin. Ft.	12BP53 Steel Pile Lin. Ft.		Structure Lighting L.S.
	Dry	Rock		Reinf.	Struct.					
Superstructure	—	—	401.5	94,200	L.S.+		859	—		1
Abutment 1E	—	—	115.8	8,729	—		—			—
Abutment 2E	—	—	107.5	7,379	—		—			—
Bent 1E	207	—	190.4	29,722	—		—			—
Bent 2E	207	—	185.8	29,647	—		—			—
Bent 3E	207	—	187.1	28,741	—		—			—
Totals	621	—	1,188.1	198,418	L.S.+		859	4,495		1

+ Structural Steel 598,818 Lbs.
Bronze 3,507 Lbs.
Stud Shear Conn. 5,796 Ea.

ESTIMATED QUANTITIES – STR. 36B

Item Nos.	17-2	17-4	135-4	135-12	132-51		704	137-4		800-36B
Item	Excavation Cu.Yds.		Concrete Class A Cu. Yds.	Steel Lbs.			Conc. Handrailing Lin. Ft.	12BP53 Steel Pile Lin. Ft.		Structure Lighting L.S.
	Dry	Rock		Reinfor.	Structural					
Superstructure	—	—	387.7	90,145	L.S. +		831	—		1
Abutment 1W	—	—	112.5	8,007	—		—			—
Abutment 2W	—	—	105.4	7,973	—		—			—
Bent 1W	207	—	190.2	29,933	—		—			—
Bent 2W	207	—	184.5	29,385	—		—			—
Bent 3W	207	—	185.2	28,549	—		—			—
Totals	621	—	1,165.5	193,992	L.S. +		831	4,470		1

+ Structural Steel 557,573 Lbs.
Bronze 3,334 Lbs.
Stud Shear Conn. 5,598 Ea.

LIST OF DRAWINGS

	DWG. NO.
Lighting Plan	ED-48
Bridge Typicals	ST1-ST6 CT1-CT3
Plan, Elevation, Soundings & Estimates	36-1
Framing Plans, Stringer Schedule & WPs	36-2
Slab Planss Details I	36-3
Slab Planss Details II	36-4
Abutment 1E	36-5
Abutment 1W	36-6
Abutment 2E	36-7
Abutment 2W	36-8
Bents	36-9
Bent Details	36-10
Std. Conc. Rlg. - State of Tenn. Dept. H. & P.W.	H-5-110

NOTES

1. For General Notes and Typical Bridge Details see Dwg. Nos. ST1 - ST6, CT1 - CT3
2. For Working Point Stations and Coordinates, see Dwg. No. 36-2
3. For layout and details of railings, see Dwgs. No. R1 & R2.
4. For pile cutoff elevations, see individual substructure drawings, Dwg. Nos. 36-5 to 36-9.
5. Design live load: A.A.S.H.O. H20-S16(44) or alternate loading specified in Par. 4(C) of P.P.M. 20-4.
6. Piles shall be driven to refusal on rock or to a minimum bearing capacity of 45 Tons as indicated on substr. dwgs.

Recommended by:
PRAEGER – KAVANAGH
CONSULTING ENGINEERS

In Charge of ...
Made by B. H.
Traced by B. H.
Checked by M.S.R.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

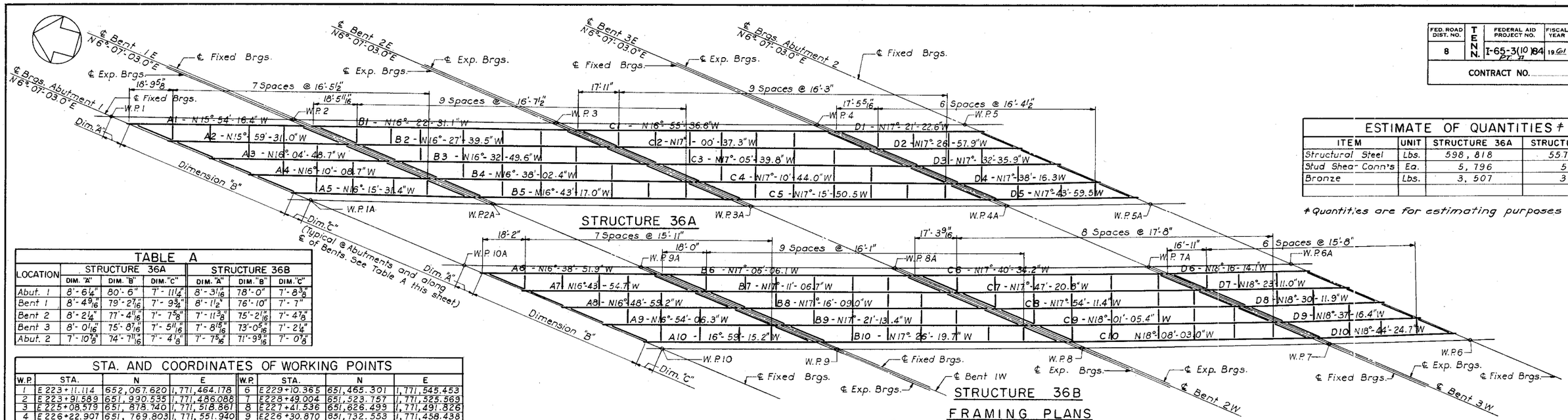
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
PLAN, ELEVATION, SOUNDINGS & ESTIMATE

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-1
SHEET NO. 52

K-10-126

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 Pt. II	19 61	53	77
CONTRACT NO.					



FRAMING PLANS

Scale: 3/64"=1'-0"

ESTIMATE OF QUANTITIES *

ITEM	UNIT	STRUCTURE 36A	STRUCTURE 36B
Structural Steel	Lbs.	598,818	551,573
Stud Shear Conn's	Ea.	5,796	5,598
Bronze	Lbs.	3,507	3,334

* Quantities are for estimating purposes only.

TABLE A

LOCATION	STRUCTURE 36A			STRUCTURE 36B		
	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "A"	DIM. "B"	DIM. "C"
Abut. 1	8'-6¼"	80'-6"	7'-11¼"	8'-3 1/16"	78'-0"	7'-8⅜"
Bent 1	8'-4 9/16"	79'-2 7/16"	7'-9¾"	8'-1⅛"	76'-10"	7'-7"
Bent 2	8'-2¼"	77'-4 11/16"	7'-7⅝"	7'-11⅜"	75'-2 1/16"	7'-4⅞"
Bent 3	8'-0 1/16"	75'-8 7/16"	7'-5 11/16"	7'-8⅝"	73'-0 5/16"	7'-2¼"
Abut. 2	7'-10⅞"	74'-7 11/16"	7'-4⅛"	7'-7⅝"	71'-9 9/16"	7'-0⅝"

STA. AND COORDINATES OF WORKING POINTS

W.P.	STA.	N	E	W.P.	STA.	N	E
1	E 223+11.114	652,067.620	1,771,464.178	6	E 229+10.365	651,465.301	1,771,545.453
2	E 223+91.589	651,990.535	1,771,486.088	7	E 228+49.004	651,523.757	1,771,525.569
3	E 225+08.579	651,878.740	1,771,518.861	8	E 227+41.536	651,626.499	1,771,491.826
4	E 226+22.907	651,769.803	1,771,551.940	9	E 226+30.870	651,732.553	1,771,458.438
5	E 226+88.546	651,707.402	1,771,571.401	10	E 225+54.843	651,805.554	1,771,436.090
1A	E 224+01.249	651,971.213	1,771,453.845	6A	E 228+32.201	651,551.287	1,771,554.669
2A	E 224+80.030	651,895.684	1,771,475.922	7A	E 227+69.221	651,611.213	1,771,534.943
3A	E 225+94.649	651,786.058	1,771,508.927	8A	E 226+58.890	651,116.512	1,771,501.474
4A	E 227+06.762	651,679.139	1,771,542.223	9A	E 225+45.985	651,824.569	1,771,468.300
5A	E 227+71.054	651,618.020	1,771,561.821	10A	E 224+68.429	651,898.973	1,771,446.103

STRINGER SCHEDULE

MARK	STRINGERS BEAM SIZE	STRINGERS BOT. COV. ℄	C. TO C. BRGS.*	CAMBER D.L.	CAMBER V. C.	CAMBER TOTAL	EXP. BRGS. TYPE	EXP. BRGS. Y	FIX. BRGS. TYPE	FIX. BRGS. Y	STUD SPACING L1	L2	L3	L4	L5	L6
A1	See Girder Schedule		79'-4 1/16"	1½"	½"	2"	EB	2⅜"	FB	2¾"	14@8"=9'-4	12@10'-10.0"	7@15"=8'-9"	6@20"=10'-0"	——	1@19'±
A2	36 WF 230	15⅝"x⅝"x52'-0"	79'-0⅛"	1⅞"		2⅜"	↓	↓	↓	↓	16@7"=9'-4	14@8"=9'-4	10@12"=10'-0"	7@16"=9'-4"	——	1@18'±
A3	36 WF 230	15⅝"x⅝"x52'-0"	78'-8⅝"	1⅞"		2⅜"					16@7"=9'-4	14@8"=9'-4	10@12"=10'-0"	7@16"=9'-4"	——	1@16'±
A4	36 WF 230	15⅞"x⅝"x52'-0"	78'-5⅜"	1⅞"		2⅜"					16@7"=9'-4	14@8"=9'-4	10@12"=10'-0"	7@16"=9'-4"	——	1@15'±
A5	See Girder Schedule		78'-1¾"	1½"		2"	↓	↓	↓	↓	14@8"=9'-4	11@10"=9'-2"	7@15"=8'-9"	6@20"=10'-0"	——	1@22'±
A6	See Girder Schedule		76'-10 3/16"	1½"		2"	EB	2⅜"	FB	2¾"	15@8"=10'-0"	11@10"=9'-2"	8@13"=8'-8"	6@18"=9'-0"	——	1@19'±
A7	36 WF 194	11"x¼"x55'-0"	76'-7⅜"	1¾"	↓	2¼"	EA	2¼"	FA	2⅛"	16@7"=9'-4	14@8"=9'-4	9@12"=9'-0"	7@16"=9'-4"	——	1@16'±
A8	36 WF 194	11"x¼"x55'-0"	76'-4⅜"	1¾"	1/2"	2¼"	EA	2¼"	FA	2⅛"	15@7"=8'-9"	14@8"=9'-4"	9@12"=9'-0"	7@16"=9'-4"	——	1@21'±
A9	36 WF 194	11"x¼"x55'-0"	76'-1 5/16"	1¾"	3/8"	2⅛"	EA	2¼"	FA	2⅛"	15@7"=8'-9"	14@8"=9'-4"	9@12"=9'-0"	7@16"=9'-4"	——	1@19'±
A10	See Girder Schedule		75'-9¾"	1⅜"	¼"	1⅝"	EB	2¾"	FB	2¾"	14@8"=9'-4	11@10"=9'-2"	8@13"=8'-8"	6@18"=9'-0"	——	1@21'±
B1			115'-0⅛"	3⅜"	1"	4⅜"	ED		FD		18@7"=10'-6	17@8"=11'-4"	12@12"=12'-0"	6@20"=10'-0"	6@24"=12'-0"	1@20'±
B2			114'-7 13/16"	3⅜"		4⅜"					16@8"=10'-8	14@10"=11'-8"	10@13"=10'-10"	7@18"=10'-6"	6@24"=12'-0"	1@20'±
B3			114'-2¼"	3⅜"		4⅜"					16@8"=10'-8	14@10"=11'-8"	10@13"=10'-10"	7@18"=10'-6"	6@24"=12'-0"	1@17'±
B4			113'-9¼"	3¼"	↓	4⅛"					15@8"=10'-0	14@10"=11'-8"	10@13"=10'-10"	7@18"=10'-6"	6@24"=12'-0"	1@23'±
B5			113'-4 5/16"	3⅛"	1"	4⅛"					18@7"=10'-6	17@8"=11'-4"	11@12"=11'-0"	6@20"=10'-0"	6@24"=12'-0"	1@22'±
B6			111'-7¼"	3"	1⅛"	4⅛"					18@7"=10'-6	17@8"=11'-4"	10@12"=10'-0"	6@20"=10'-0"	6@24"=12'-0"	1@24'±
B7			111'-2 1/16"	3⅛"	0	3⅛"					15@8"=10'-0	13@10"=10'-10"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@23'±
B8			110'-10 13/16"	3⅛"	0	3⅛"					15@8"=10'-0	13@10"=10'-10"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@21'±
B9			110'-5 5/16"	3⅛"	0	3⅛"					15@8"=10'-0	13@10"=10'-10"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@19'±
B10			110'-1⅛"	2⅞"	0	2⅞"					15@8"=10'-0	14@9"=10'-6"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@21'±
C1			112'-4⅞"	3"	¾"	3¾"					17@7"=9'-11	16@8"=10'-8"	12@12"=12'-0"	6@20"=10'-0"	6@24"=12'-0"	1@19'±
C2			112'-0⅛"	3¼"	½"	3¾"					16@8"=10'-8	13@10"=10'-10"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@20'±
C3			111'-7⅝"	3¼"	¼"	3½"					16@8"=10'-8	13@10"=10'-10"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@18'±
C4			111'-3 1/16"	3⅛"	0	3⅛"					15@8"=10'-0	13@10"=10'-10"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@24'±
C5			110'-10⅞"	3"		3"					14@8"=9'-4"	14@9"=10'-6"	10@13"=11'-1"	8@18"=12'-0"	5@24"=10'-0"	1@20'±
C6			109'-0¾"	2⅞"		2⅞"					14@8"=9'-4"	14@9"=10'-6"	10@13"=10'-10"	8@18"=12'-0"	5@24"=10'-0"	1@22'±
C7			108'-6⅞"	3"		3"					16@8"=10'-8	13@10"=10'-10"	10@13"=10'-10"	7@18"=10'-6"	5@24"=10'-0"	1@17'±
C8			108'-1 1/16"	3"		3"					15@8"=10'-0	13@10"=10'-10"	10@13"=10'-10"	7@18"=10'-6"	5@24"=10'-0"	1@23'±
C9			107'-7¼"	2⅞"		2⅞"	↓	↓	↓	↓	15@8"=10'-0	13@10"=10'-10"	10@13"=10'-10"	7@18"=10'-6"	5@24"=10'-0"	1@20'±
C10			107'-1 7/16"	2⅞"		2⅞"	ED	2⅜"	FD		14@8"=9'-4"	15@9"=11'-3"	11@12"=11'-0"	6@20"=10'-0"	5@24"=10'-0"	1@24'±
D1	See Girder Schedule		64'-7⅜"	⅞"		⅞"	EB	2⅜"	FB	2¾"	12@8"=8'-0"	8@12"=8'-0"	6@16"=8'-0"	4@20"=6'-10"	——	1@18'±
D2	36 WF 150	11"x⅝"x45'-6"	64'-4⅞"	1⅛"		1⅛"	EA	2¼"	FA	2⅛"	14@6"=7'-0"	12@8"=8'-0"	8@12"=8'-0"	6@15"=7'-6"	——	1@20'±
D3	36 WF 150	11"x⅝"x45'-6"	64'-1 15/16"	1⅛"		1⅛"	EA	2¼"	FA	2⅛"	14@6"=7'-0"	12@8"=8'-0"	8@12"=8'-0"	6@15"=7'-6"	——	1@19'±
D4	36 WF 150	11"x⅝"x45'-6"	63'-11⅛"	1⅛"		1⅛"	EA	2¼"	FA	2⅛"	14@6"=7'-0"	12@8"=8'-0"	8@12"=8'-0"	6@15"=7'-6"	——	1@18'±
D5	See Girder Schedule		63'-8 3/16"	3¼"		3¼"	EB	2⅜"	FB	2¾"	11@8"=7'-4"	8@12"=8'-0"	6@16"=8'-0"	4@20'-6"=8'	——	1@22'±
D6	See Girder Schedule		62'-4⅜"	3¼"		3¼"	EB	2⅜"	FB	2¾"	10@8"=6'-8"	8@12"=8'-0"	6@16"=8'-0"	4@20'-6"=8'	——	1@22'±
D7	36 WF 150	11"x⅜"x43'-0"	62'-1"	1"		1"	EA	2¼"	FA	2⅛"	14@6"=7'-0"	12@8"=8'-0"	7@12"=7'-0"	6@15"=7'-6"	——	1@19'±
D8	36 WF 150	11"x⅜"x43'-0"	61'-9 11/16"	1"	↓	1"	EA	2¼"	FA	2⅛"	14@6"=7'-0"	12@8"=8'-0"	7@12"=7'-0"	6@15"=7'-6"	——	1@17'±
D9	36 WF 150	11"x⅜"x43'-0"	61'-6⅜"	1"		1"	EA	2¼"	FA	2⅛"	14@6"=7'-0"	12@8"=8'-0"	7@12"=7'-0"	6@15"=7'-6"	——	1@15'±
D10	See Girder Schedule		61'-3 1/16"	5/8"	0	5/8"	EB	2⅜"	FB	2¾"	11@8"=7'-4"	7@12"=7'-0"	6@16"=8'-0"	4@20"=6'-10"	——	1@18'±

* - Horizontal Lengths

STRINGER SKEW ANGLES

MARK	ANGLE	MARK	ANGLE	MARK	ANGLE	MARK	ANGLE	MARK	ANGLE	MARK	ANGLE	MARK	ANGLE	MARK	ANGLE
A1	22°01'19.4"	A6	22°45'54.9	B1	22°29'34.1	B6	23°13'09.1	C1	23°02'39.6	C6	23°47'31.2	D1	23°28'25.6	D6	24°23'17.1
A2	22°06'34.0	A7	22°50'57.7	B2	22°34'42.5	B7	23°18'09.7	C2	23°07'40.3	C7	23°54'23.8	D2	23°34'00.9	D7	24°30'14.0
A3	22°11'51.7	A8	22°56'02.2	B3	22°39'52.6	B8	23°23'12.0	C3	23°12'42.8	C8	24°01'14.4	D3	23°39'38.9	D8	24°37'14.9
A4	22°17'17.7	A9	23°01'09.3	B4	22°45'05.4	B9	23°28'15.4	C4	23°17'47.0	C9	24°06'08.4	D4	23°45'19.3	D9	24°44'19.4
A5	22°22'34.4	A10	23°06'18.2	B5	22°50'20.0	B10	23°33'22.1	C5	23°22'53.5	C10	24°11'06.0	D5	23°51'02.5	D10	24°51'21.7

* - All lengths are horizontal. # All web plates 45½" x ½"

GIRDER SCHEDULE *

	A1 a	A1 b	A1 c	A5 a	A5 b	A5 c	A6 a	A6 b	A6 c	A10 a	A10 b	A10 c
Top ℙ	12"x⅞"x40'-0"	——	——	12"x⅞"x39'-4½"	——	——	12"x⅞"x38'-4"	——	——	12"x⅞"x38'-2"	——	——
Web ℙ #												
Bott. ℙ	16"x1"x13'-6"	16"x1½"x266"	——	16"x1"x12'-10⅝"	16"x1½"x266"	——	16"x1"x15'-0"	16"x1⅜"x23'-9"	——	16"x1"x14'-5⅝"	16"x1⅜"x23'-9"	——
Stiff. Spacing	1@3'-2", 4@3'-6, 6@3'-9"			1@3'-3⅛", 7@3'-6", 3@3'-9"			1@3'-2¼", 9@3'-6", 1@3'-9"			1@3'-1⅞", 1@3'-3", 9@3'-6"		

B1 - B10

	B1 a	B1 b	B1 c	B2 a	B2 b	B2 c	B3 a	B3 b	B3 c
Top ℙ	20"x¾"x41'-0"	20"x1¼"x8'-9"	20"x1¼"x34'-3"	20"x¾"x16'-1"	20"x1⅛"x6'-0"	20"x1⅝"x35'-6"	20"x¾"x15'-11"	20"x1¼"x6'-0"	20"x1⅝"x35'-6"
Web ℙ #									
Bott. ℙ	22"x1"x10'-0"	22"x1⅝"x7'-0"	22"x2⅜"x39'-0"	22"x1"x12'-7"	22"x1⅛"x6'-3"	22"x2⅜"x38'-9"	22"x1"x12'-5"	22"x1⅛"x6'-3"	22"x2⅜"x38'-9"
Stiff. Spacing	1@3'-0 1/16", 7@3'-6", 8@3'-9"			1@3'-3 15/16", 9@3'-6", 6@3'-9"			1@3'-1⅜", 9@3'-6", 6@3'-9"		

	B4 a	B4 b	B4 c	B5 a	B5 b	B5 c	B6 a	B6 b	B6 c
Top ℙ	20"x¾"x15'-8"	20"x1⅛"x6'-0"	20"x1⅝"x35'-6"	20"x¾"x14'-0"	20"x1¼"x8'-9"	20"x1⅝"x34'-3"	20"x¾"x13'-5"	20"x1¼"x8'-9"	20"x1⅝"x34'-3"
Web ℙ #									
Bott. ℙ	22"x1"x12'-2"	22"x1⅛"x6'-3"	22"x2⅜"x38'-9"	22"x1"x11'-0"	22"x1¼"x7'-0"	22"x2⅜"x39'-0"	22"x1"x10'-1"	22"x1¼"x7'-0"	22"x2⅜"x39'-0"
Stiff. Spacing	1@3'-4½", 11@3'-6", 4@3'-9"			1@3'-2½", 11@3'-6", 4@3'-9"			1@3'-3⅝", 14@3'-9"		

	B7 a	B7 b	B7 c	B8 a	B8 b	B8 c	B9 a	B9 b	B9 c
Top ℙ	20"x¾"x16'-0"	20"x1⅛"x6'-3"	20"x1⅜"x33'-0"	20"x¾"x16'-6"	20"x1⅛"x6'-3"	20"x1⅜"x33'-0"	20"x¾"x16'-3"	20"x1⅛"x6'-3"	20"x1⅜"x33'-0"
Web ℙ #									
Bott. ℙ	22"x1"x12'-11"	22"x1⅛"x6'-6"	22"x2⅛"x36'-6"	22"x1"x12'-9"	22"x1⅛"x6'-6"	22"x2⅛"x36'-6"	22"x1"x12'-6"	22"x1⅛"x6'-6"	22"x2⅛"x36'-6"
Stiff. Spacing	1@3'-1 5/16", 14@3'-9"			1@3'-5 1/16", 2@3'-6", 12@3'-9"			1@3'-2 15/16", 2@3'-6", 12@3'-9"		

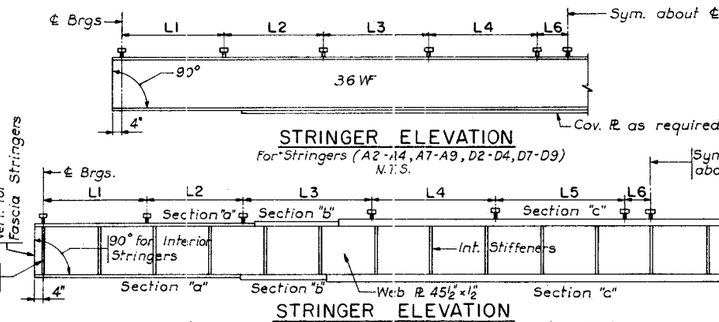
	B10 a	B10 b	B10 c	C1 a	C1 b	C1 c	C2 a	C2 b	C2 c
Top ℙ	20"x¾"x16'-1"	20"x1¼"x7'-9"	20"x1⅜"x31'-6"	20"x¾"x15'-6"	20"x1¼"x8'-9"	20"x1⅜"x33'-0"	20"x¾"x14'-11"	20"x1¼"x7'-9"	20"x1⅜"x33'-0"
Web ℙ #									
Bott. ℙ	22"x1"x12'-1"	22"x1⅝"x7'-9"	22"x2¼"x35'-0"	22"x1"x10'-6"	22"x1⅝"x7'-0"	22"x2⅜"x39'-0"	22"x1"x9'-8"	22"x1⅝"x6'-6"	22"x2⅛"x36'-6"
Stiff. Spacing	1@3'-0 9/16", 2@3'-6, 12@3'-9"			1@3'-8 1/16", 14@3'-9"			1@3'-6 1/8", 14@3'-9"		

	C3 a	C3 b	C3 c	C4 a	C4 b	C4 c	C5 a	C5 b	C5 c
Top ℙ	20"x¾"x16'-0"	20"x1⅛"x6'-3"	20"x1⅜"x33'-0"	20"x¾"x16'-6"	20"x1⅛"x6'-3"	20"x1⅜"x33'-0"	20"x¾"x16'-3"	20"x1¼"x7'-9"	20"x1⅝"x31'-6"
Web ℙ #									
Bott. ℙ	22"x1"x13'-1"	22"x1½"x6'-6"	22"x2¼"x36'-6"	22"x1"x12'-11"	22"x1½"x6'-6"	22"x2¼"x36'-6"	22"x1"x13'-0"	22"x1⅝"x7'-9"	22"x2¼"x35'-0"
Stiff. Spacing	1@3'-5 13/16", 14@3'-9"			1@3-11", 14@3'-9"			1@3'-5¾", 2@3'-6", 12@3'-9"		

	C6 a	C6 b	C6 c	C7 a	C7 b	C7 c	C8 a	C8 b	C8 c
Top ℙ	20"x¾"x15'-7"	20"x1¼"x7'-9"	20"x1⅜"x31'-6"	20"x¾"x15'-3"	20"x1¼"x8'-0"	20"x1⅜"x31'-6"	20"x¾"x14'-11"	20"x1¼"x7'-9"	20"x1⅜"x31'-6"
Web ℙ #									
Bott. ℙ	22"x1"x12'-3"	22"x1⅝"x7'-9"	22"x2¼"x35'-0"	22"x1"x11'-10"	22"x1⅝"x7'-3"	22"x2⅜"x29'-6"	22"x1"x11'-7½"	22"x1⅝"x7'-3"	22"x2⅜"x29'-6"
Stiff. Spacing	1@3'-3 1/16", 14@3'-9"			1@3'-3 1/16", 6@3'-6", 8@3'-9"			1@3'-0½", 6@3'-6", 8@3'-9"		

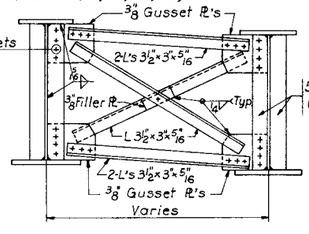
	C9 a	C9 b	C9 c	C10 a	C10 b	C10 c	D1 a	D1 b	D1 c
Top ℙ	20"x¾"x19'-4½"	20"x1⅜"x34'-9"		20"x¾"x16'-10½"	20"x1⅜"x7'-0"	20"x1½"x30'-0"	12"x¾"x32'-7½"	——	——
Web ℙ #									
Bott. ℙ	22"x1"x17'-4½"	22"x1½"x7'-3"	22"x2¼"x29'-6"	22"x1"x13'-11"	22"x1⅜"x8'-3"	22"x2¼"x32'-6"	16"x1"x32'-7½"	——	——
Stiff. Spacing	1@3'-3⅝", 8@3'-6", 6@3'-9"			1@3'-0 1/16", 8@3'-6", 6@3'-9"			1@3'-0½", 3@3'-6", 5@3'-9"		

	D5 a	D5 b	D5 c	D6 a	D6 b	D6 c	D10 a	D10 b	D10 c
Top ℙ	12"x¾"x32'-6"	——	——	12"x¾"x31'-6"	——	——	12"x¾"x30'-11½"	——	——
Web ℙ #									
Bott. ℙ	16"x1"x32'-6"	——	——	16"x1"x31'-6"	——	——	16"x1"x30'-11½"	——	——
Stiff. Spacing	1@3'-1 5/16", 5@3'-6", 3@3'-9"			1@3'-2 15/16", 8@3'-6"			1@3'-1½", 2@3'-3", 6@3'-6"		



NOTES FOR STIFFENERS

1. End stiffener ℙ's to be: 5½"x½" for Stringers D1, D5, D6, D10; 5½"x9/16" for Stringers A1, A5, A6, A10; 9"x¾" for Stringers B1-B10, C1-C10.
2. All intermediate stiffener ℙ's to be 5"x5/16".
3. On interior Stringers - all stiffeners to be used in pairs.
4. On fascia Stringers, intermediate stiffeners to be used on inside face only; end stiffeners to be used in pairs.
5. Fabricator to compensate for bending during fabrication caused by stiffeners on one side.



INTERIOR DIAPHRAGM

(Spans B ℄ C only)
Scale: ½"=1'-0"

NOTES

1. For additional Notes, see Dwg. No. 36-1.
2. For additional bearing Details, see Dwg. No. ST-2.
3. For Details of Stud Shear Connectors, see Dwg. No. ST-2.
4. For cover plate Details, see Dwg. No. ST-2.
5. For bearing elevations, see individual substructure drawings.
6. For Details of welds for built-up girders, see Dwg. No. ST-5.
7. For additional framing Details, see Dwg. Nos. ST-3, ST-4 & ST-5.
8. For Sections C-C, D-D, E-E & F-F, see Dwg. No. ST-3.
9. For Sections J-J, K-K, L-L & R-R, see Dwg. No. ST-4.
10. Location of intermediate stiffener may be varied to match cross frames, or stiffeners may be added to connect cross frames to stringers whichever is preferable. Stiffeners thus added are to be placed in pairs except at fascia stringer. Cross frame spacing shall not exceed 18'-0". Stiffener spacing shall not exceed 3'-9". Any changes are to be approved by the Engineer.

Recommended by: [signature] PFAEGER-KAVANAGH CONSULTING ENGINEERS

In Charge of [signature]

Made by P.J.C.

Traced by P.J.

Checked by M.S.R.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

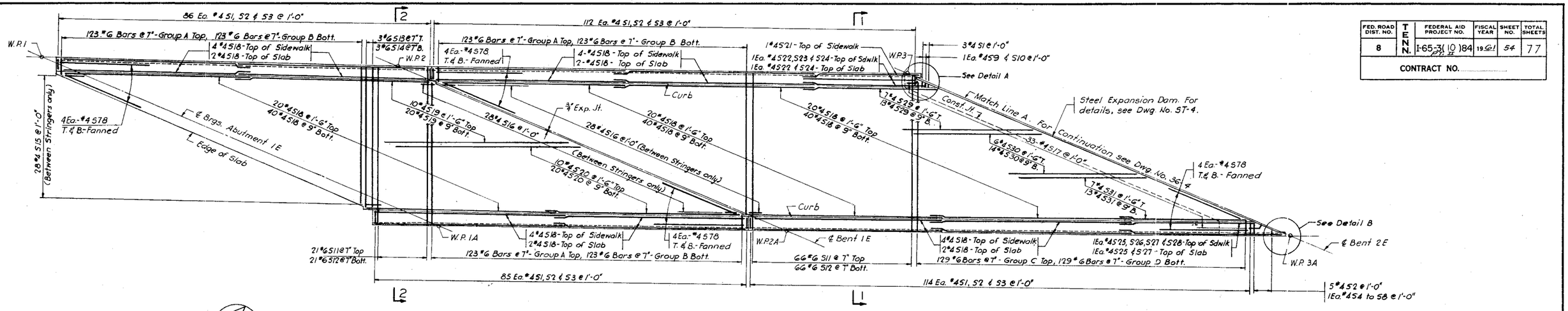
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
FRAMING PLANS, STRINGER SCHEDULES & WPS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-2
SHEET NO. 53

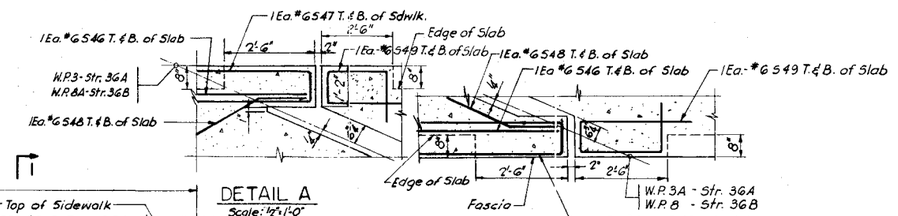
K-10-127

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)184 Pt. II	1961	54	77
CONTRACT NO.					



STRUCTURE 36A

Scale: 3/32" = 1'-0"

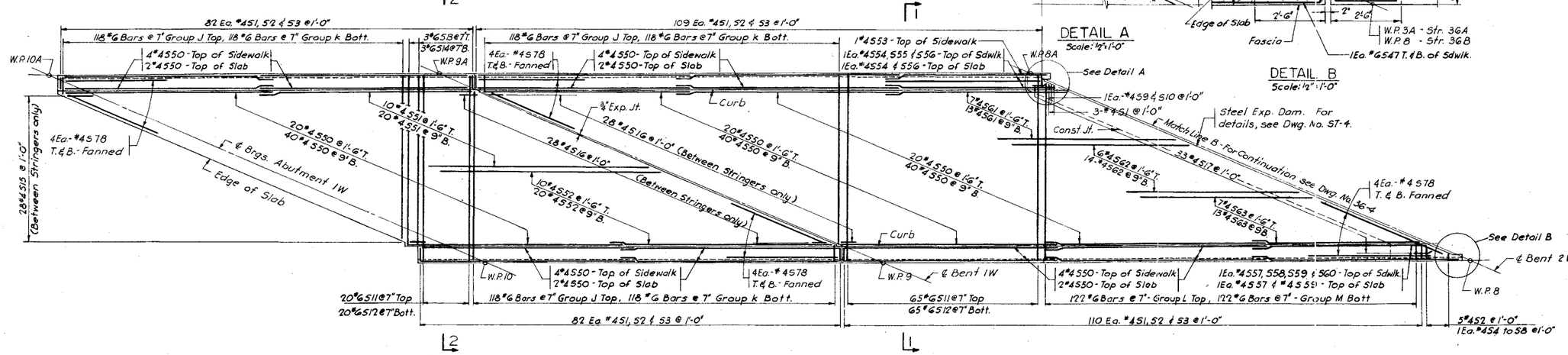


DETAIL A

Scale: ½" = 1'-0"

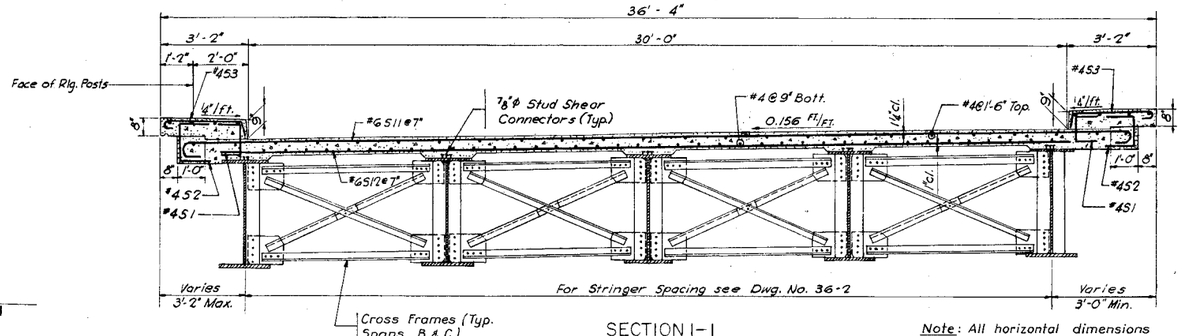
DETAIL B

Scale: ½" = 1'-0"



STRUCTURE 36B

Scale: 3/32" = 1'-0"



SECTION 1-1

Scale: 3/8" = 1'-0"

Note: All horizontal dimensions and slope are radial.

NOTES

1. For additional Notes see Dwg. No. 36-1
2. For Stations and Coordinates of Working Points see Dwg. No. 36-2
3. For additional slab details see Dwg. Nos. ST-3, ST-4 and ST-5.
4. Spacing between reinforcing shown on Plan is perpendicular to ℄ of bar.
5. Work this sheet with Dwg No. 36-4.
6. For location of Lamp Posts see Dwg. No. 36-1. For special reinforcing see Dwg. No. ST-5.
7. For Section 1-1, see Dwg. No. 36-4.
8. For Railing Details, see Dwgs. No. R1 & R2.

Recommended by:
PRAEGER - KAVANAGH
CONSULTING ENGINEERS
In Charge of
Made by S.N.
Traced by S.N.
Checked by M.S.R.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)184 Pt. II

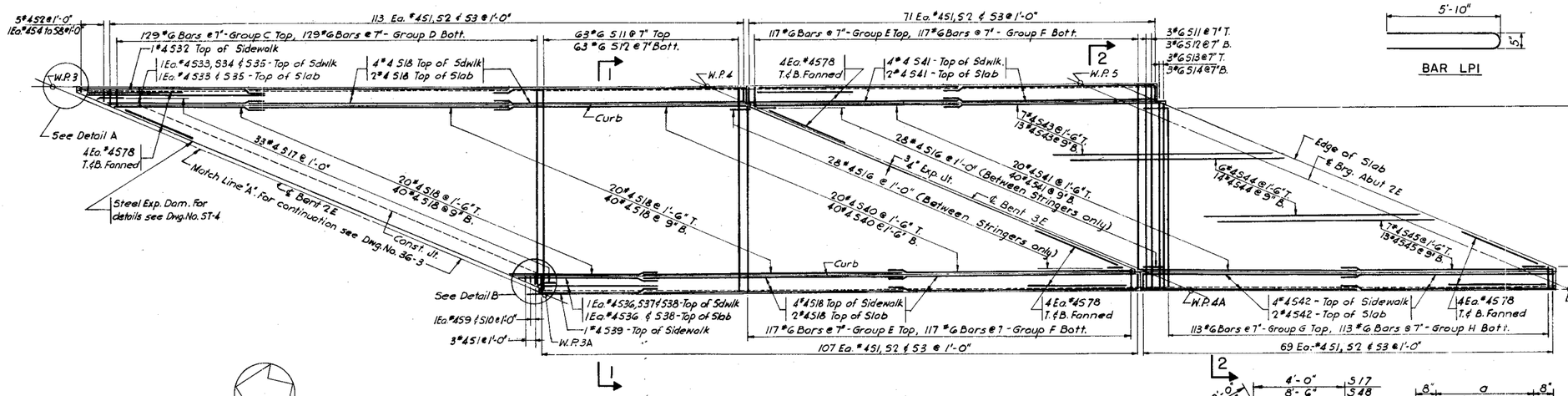
STRUCTURE NOS. 36A & 36B
LINE E OVER NORTH 1st STREET
SLAB PLANS AND DETAILS I

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-3
SHEET NO. 54

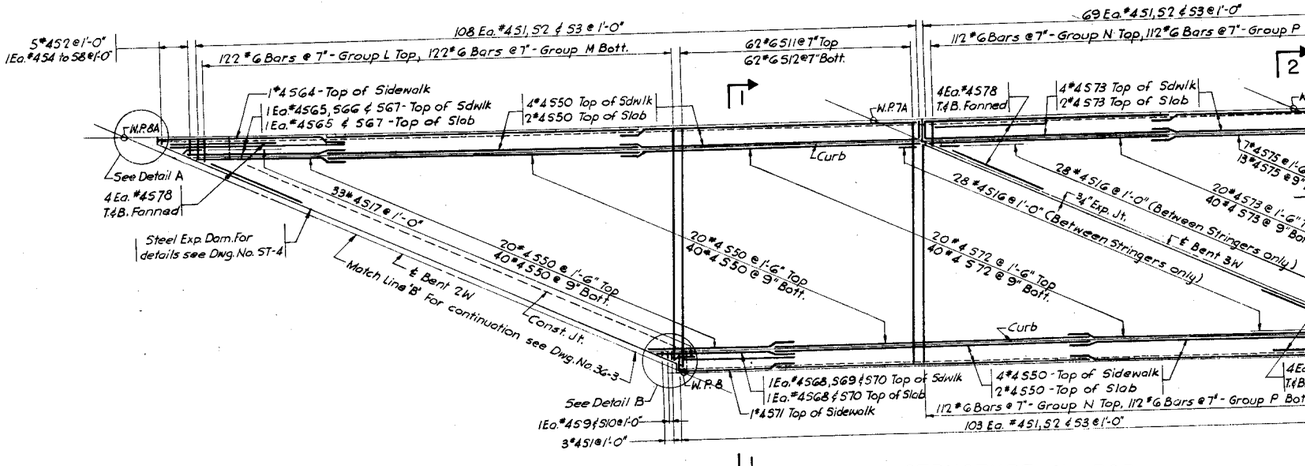
K-10-128

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 PT. II	1961	55	77
CONTRACT NO.					



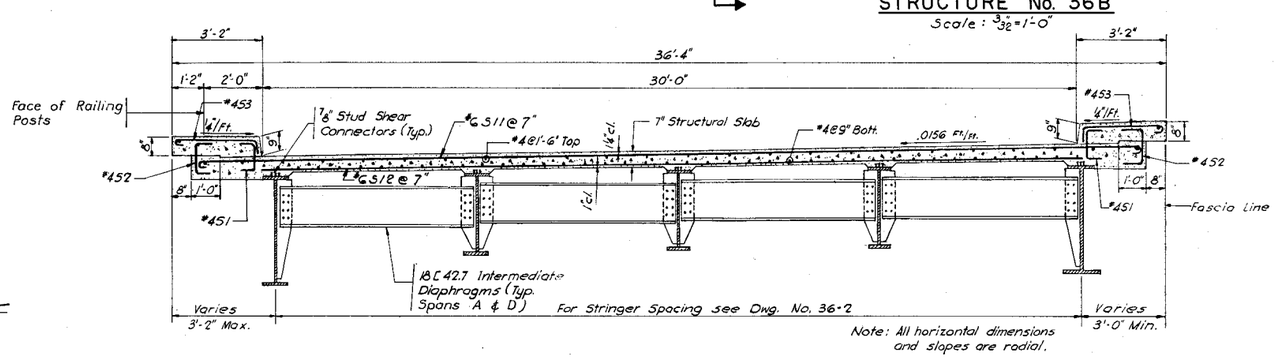
STRUCTURE No. 36A

Scale : 3/32" = 1'-0"



STRUCTURE No. 36B

Scale : 3/32" = 1'-0"



SECTION 2-2

Scale : 3/8" = 1'-0"

BILL OF STEEL

STRUCTURE 36A				STRUCTURE 36B			
Bar	No.	Size	Length	Bar	No.	Size	Length
S1	763	#4	2'-3"	S1	735	#4	2'-3"
S2	767		2'-4"	S2	739		2'-4"
S3	757		4'-0"	S3	729		4'-0"
S4 to S8	2 Ea.		1'-11" to 3'-7"	S4 to S8	2 Ea.		1'-11" to 3'-7"
S9	2		2'-0"	S9	2		2'-0"
S10	2	#4	2'-5"	S10	2	#4	2'-5"
S11	153	#6	36'-0"	S11	150	#6	36'-0"
S12	153		32'-6"	S12	150	#6	32'-6"
S13	6		33'-6"	S13	6	#6	33'-6"
S14	6	#6	31'-6"	S14	6	#6	31'-6"
S15	56	#4	12'-9"	S15	56	#4	12'-9"
S16	112		9'-3"	S16	118	#4	9'-3"
S17	66		6'-0"	S17	66	#4	6'-0"
S18	372		43'-6"	S46	4	#6	6'-0"
S19	30		44'-0"	S47	4	#6	8'-10"
S20	30		45'-0"	S48	4	#6	10'-0"
S21	1		37'-6"	S49	4	#6	8'-0"
S22	2		29'-9"	S50	372	#4	42'-0"
S23	1		31'-3"	S51	30		42'-9"
S24	2		33'-0"	S52	30		44'-0"
S25	2		30'-6"	S53	1		26'-0"
S26	1		32'-3"	S54	2		24'-3"
S27	2		33'-9"	S55	1		25'-9"
S28	1		35'-6"	S56	2		27'-6"
S29	20		33'-0"	S57	2		29'-3"
S30	20		32'-0"	S58	1		31'-0"
S31	20		31'-0"	S59	2		32'-6"
S32	1		32'-9"	S60	1		34'-3"
S33	2		32'-0"	S61	20		32'-9"
S34	1		30'-6"	S62	20		31'-6"
S35	2		28'-9"	S63	20		30'-3"
S36	2		28'-0"	S64	1		31'-3"
S37	1		26'-3"	S65	2		30'-6"
S38	2		24'-9"	S66	1		29'-0"
S39	1		25'-0"	S67	2		27'-3"
S40	60		29'-9"	S68	2		26'-6"
S41	72		36'-3"	S69	1		24'-9"
S42	12		35'-3"	S70	2		23'-3"
S43	20		38'-0"	S71	1		23'-6"
S44	20		37'-6"	S72	60		27'-3"
S45	20	#4	36'-0"	S73	72		35'-0"
S46	4	#6	6'-0"	S74	12		34'-0"
S47	4	#6	8'-10"	S75	20		37'-0"
S48	4	#6	10'-0"	S76	20		35'-9"
S49	4	#6	8'-0"	S77	20		34'-3"
S78	64	#4	20'-0"	S78	64	#4	20'-0"
A	36 at 123	#6	4'-0" to 33'-3"	J	36 at 118	#6	4'-0" to 33'-3"
B	36 at 123		1'-6" to 30'-9"	K	36 at 118		1'-6" to 30'-9"
C	26 at 123		4'-0" to 35'-3"	L	26 at 122		4'-0" to 35'-3"
D	26 at 123		1'-6" to 31'-0"	M	26 at 122		1'-6" to 31'-0"
E	26 at 117		4'-0" to 33'-3"	N	26 at 111		4'-0" to 33'-3"
F	26 at 117		1'-6" to 30'-9"	P	26 at 111		1'-6" to 30'-9"
G	14 at 113		4'-0" to 33'-3"	R	14 at 107		4'-0" to 33'-3"
H	14 at 113	#6	1'-6" to 30'-9"	S	14 at 107	#6	1'-6" to 30'-9"
LP1	16	#6	12'-1"	LP1	8	#6	12'-1"
LP2	24	#6	6'-0"	LP2	12	#6	6'-0"

ESTIMATE OF QUANTITIES

ITEM	UNIT	QUANTITY	
		STRUCTURE 36A	STRUCTURE 36B
Concrete Class A	C.Y.	401.5	387.7
Reinforcing Steel	Lbs.	94,200	90,145

NOTES:

1. For Railing Details, see Dwgs. No. R1 & R2.
2. For additional Notes see Dwg. No. 36-1
3. For Stations and Coordinates of Working Points, see Dwg. No. 36-2
4. For additional slab details, see Dwg. Nos. ST-3, ST-4 and ST-5
5. Spacing between reinforcing shown on Plan is perpendicular to ℄ of bar.
6. Work this sheet with Dwg. No. 36-3.
7. For location of lamp posts see Dwg. No. 36-1. For special reinforcing see Dwg. No. ST-5.
8. For Section 1-1 and Details A & B, see Dwg. No. 36-3.

Recommended by: R. C. Paeger
PAEGER - KAVANAGH CONSULTING ENGINEERS
In Charge of: R. C. Paeger
Made by: S.N.
Traced by: S.N.
Checked by: M.J.R.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

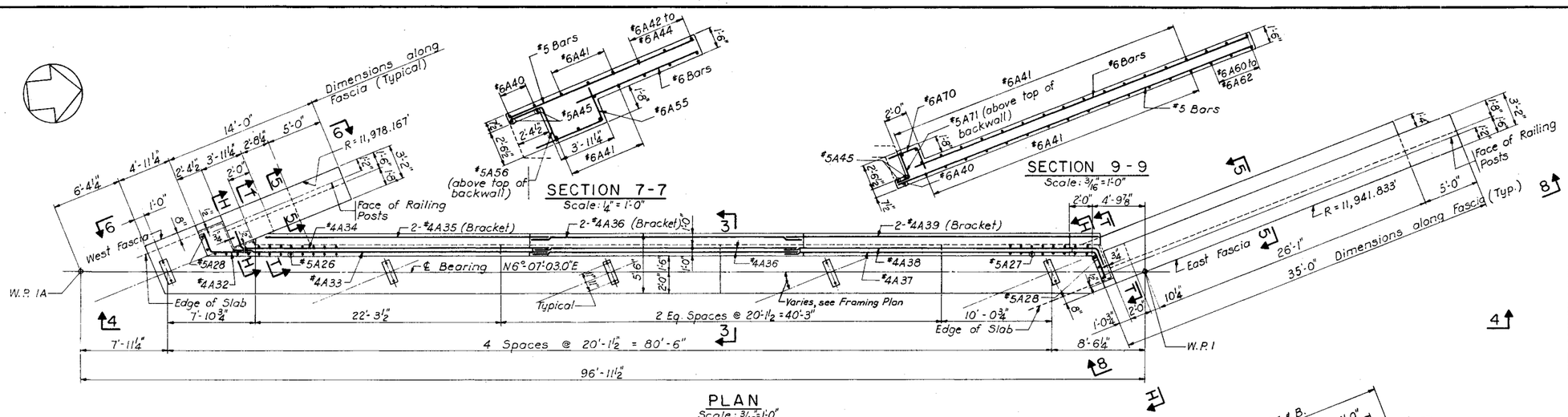
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
SLAB PLANS AND DETAILS II

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-4
SHEET NO. 55

K-10-129

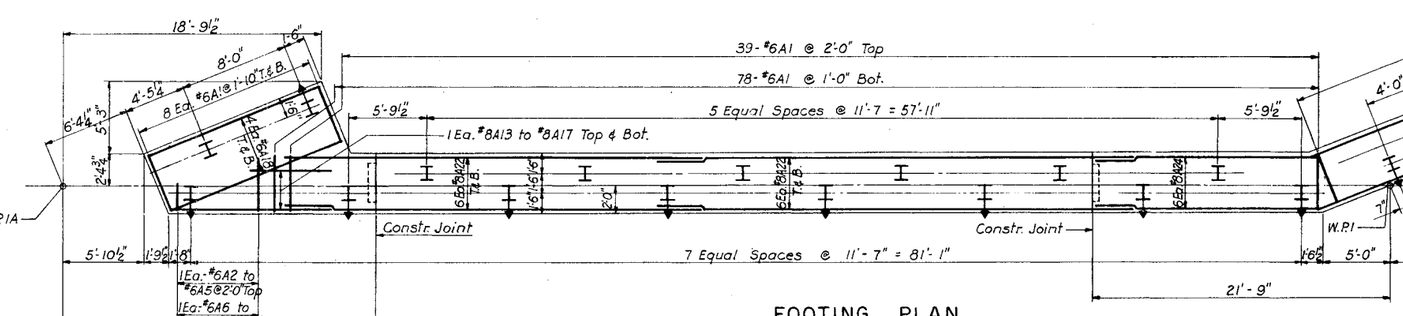
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)84 PT. II	1961	56	77
CONTRACT NO.					



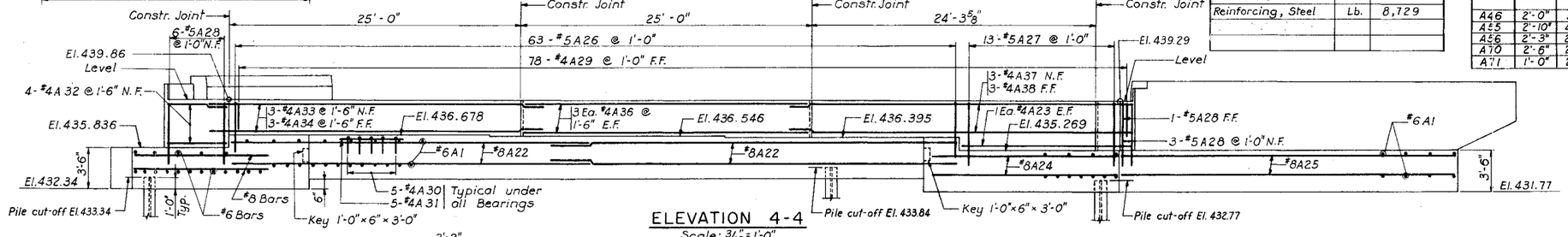
PLAN
Scale: 3/16"=1'-0"

SECTION 7-7
Scale: ¼"=1'-0"

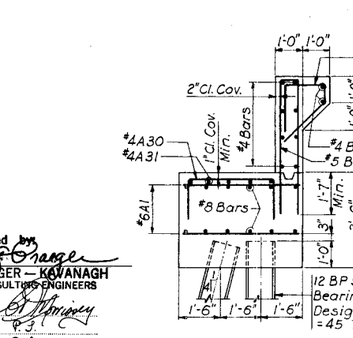
SECTION 9-9
Scale: 3/16"=1'-0"



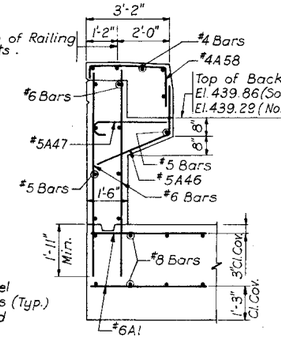
FOOTING PLAN
Scale: 3/16"=1'-0"



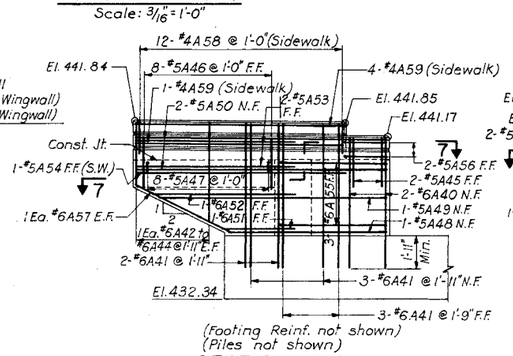
ELEVATION 4-4
Scale: 3/16"=1'-0"



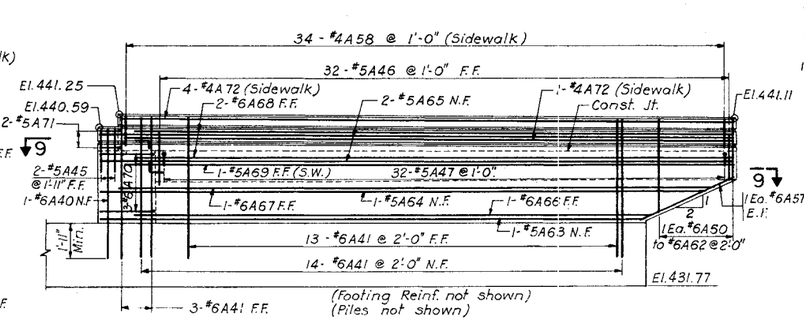
SECTION 3-3
Scale: 3/8"=1'-0"



SECTION 5-5
Scale: 3/8"=1'-0"



SECTION 6-6
Scale: 1/4"=1'-0"



SECTION 8-8
Scale: 1/4"=1'-0"

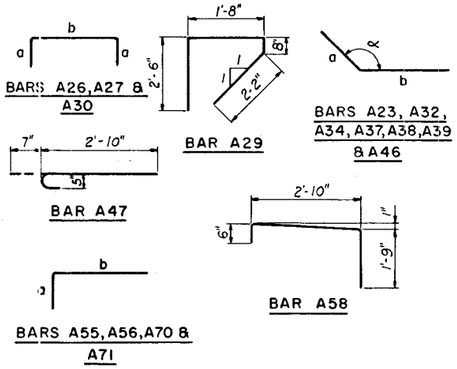
BILL OF STEEL

ABUTMENT 1E

BAR	NO.	SIZE	LENGTH	BAR	NO.	SIZE	LENGTH
A1	165	#6	4'-0"	A42 to A44	2 Ea.	#6	3'-2" to 5'-2"
A2 to A5	1 Ea.	#6	2'-0" to 4'-0"	A45	4	#5	2'-8"
A6 to A12	1 Ea.	#6	2'-0" to 4'-0"	A46	40	#5	5'-0"
A13 to A17	2 Ea.	#6	6'-3" to 11'-6"	A47	40	#5	3'-5"
A18	8	#6	13'-6"	A48	1	#5	8'-8"
A22	24	#8	32'-9"	A49	1	#5	12'-0"
A23	2	#4	16'-8"	A50	2	#5	13'-8"
A24	12	#8	16'-9"	A51	1	#6	4'-6"
A25	12	#8	31'-0"	A52	1	#6	7'-10"
A26	63	#5	9'-8"	A53	2	#5	9'-6"
A27	13	#5	11'-8"	A54	1	#5	9'-3"
A28	10	#5	5'-6"	A55	3	#6	7'-4"
A29	78	#4	7'-0"	A56	2	#5	4'-9"
A30	25	#4	5'-3"	A57	4	#6	5'-6"
A31	25	#4	5'-0"	A58	46	#4	5'-1"
A32	4	#4	7'-0"	A59	5	#4	11'-3"
A33	3	#4	28'-4"	A60 to A62	2 Ea.	#6	2'-11" to 4'-11"
A34	3	#4	28'-5"	A63	1	#5	29'-8"
A35	2	#4	26'-6"	A64	1	#5	33'-0"
A36	8	#4	24'-8"	A65	2	#5	34'-8"
A37	3	#4	31'-0"	A66	1	#6	28'-8"
A38	3	#4	30'-3"	A67	1	#6	32'-0"
A39	2	#4	28'-3"	A68	2	#6	33'-8"
A40	3	#6	7'-1"	A69	1	#5	33'-4"
A41	38	#6	7'-9"	A70	3	#6	5'-4"
				A71	2	#5	3'-6"
				A72	5	#4	33'-6"

BENT BARS SCHEDULE

Bar	a	b	∝°
A23	3'-0"	13'-8"	112°
A26	4'-6"	8"	—
A27	5'-6"	8"	—
A30	1'-0"	3'-3"	—
A32	2'-9"	4'-3"	113°
A34	1'-9"	26'-8"	113°
A37	3'-0"	28'-0"	112°
A38	2'-0"	28'-3"	112°
A46	2'-0"	3'-0"	111°
A55	2'-10"	4'-6"	—
A56	2'-3"	2'-6"	—
A70	2'-6"	2'-10"	—
A71	1'-0"	2'-6"	—



ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Concrete, Class A	Cu. Yd.	115.8
Reinforcing, Steel	Lb.	8,729

NOTES

1. For additional Notes, see Dwg. No. 36-1.
2. For Stations and coordinates of Working Points, see Dwg. No. 36-2.
3. For bearings of all stringers, see Dwg. No. 36-2.
4. For Bearing Details, see Dwg. No. ST-2.
5. For Anchor Bolt Details, see Dwg. No. ST-6.
6. For Section H-H, see Dwg. No. ST-3.
7. For Section T-T, see Dwg. No. ST-5.
8. Clear cover for reinforcing is from face of concrete to face of bar.
9. Batter all battered piles 4 on 1. Battered piles indicated as ⊥
10. For Railing Details, see Dwgs. No. R1 & R2.

Recommended by: R. F. Prazger
PRAZGER — KAVANAGH CONSULTING ENGINEERS
In Charge of: C. M. Kavanagh
Made by: R. J.
Traced by:
Checked by: C.M.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

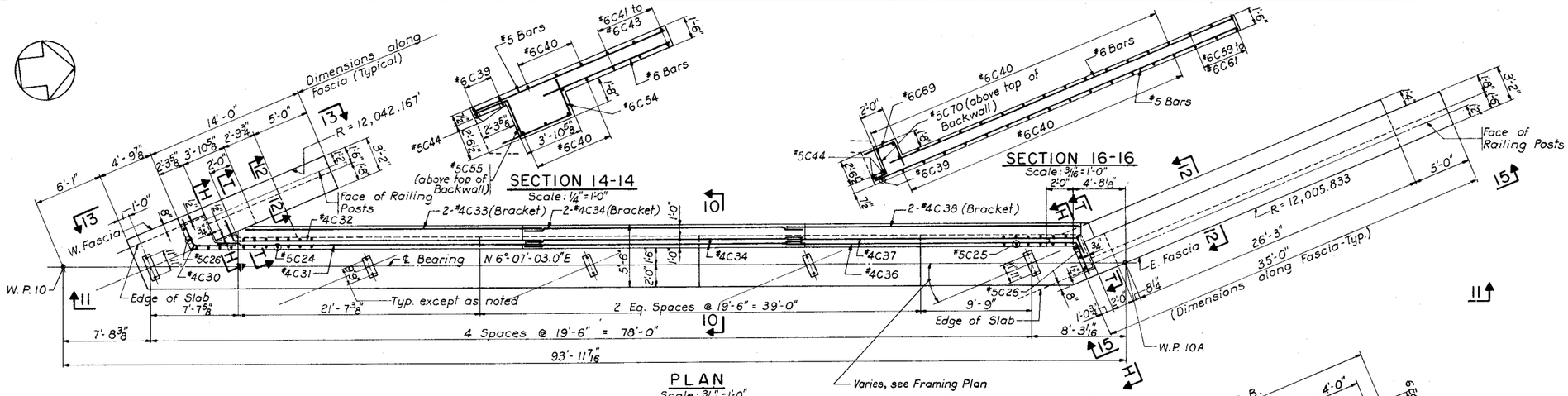
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
ABUTMENT 1E

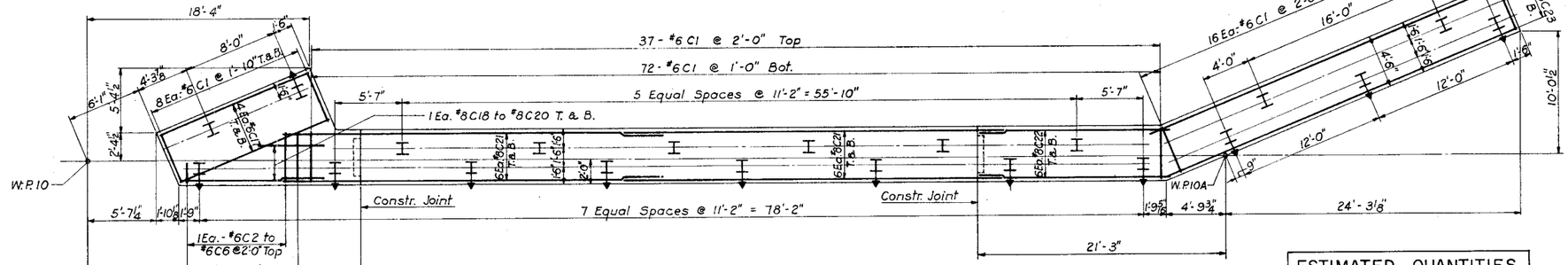
CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	As Shown
DATE	Aug. 1961
DRAWING NO.	36-5
SHEET NO.	56

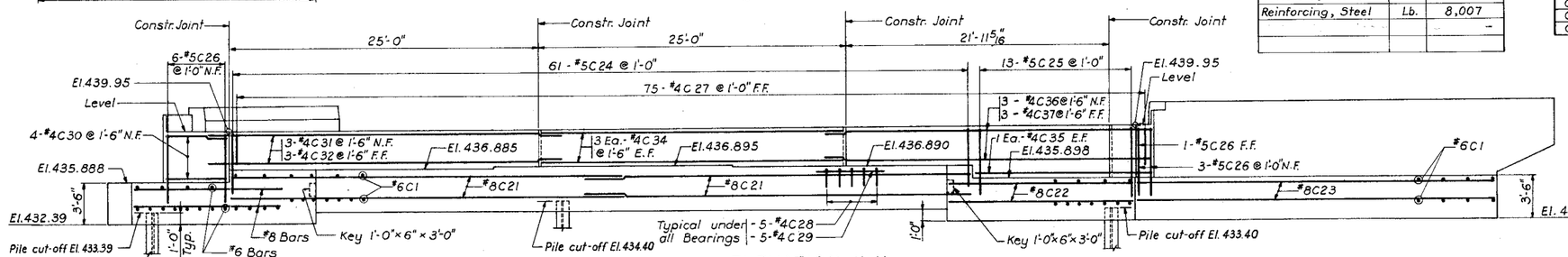
K-10-130

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84	1961	57	77
CONTRACT NO.					

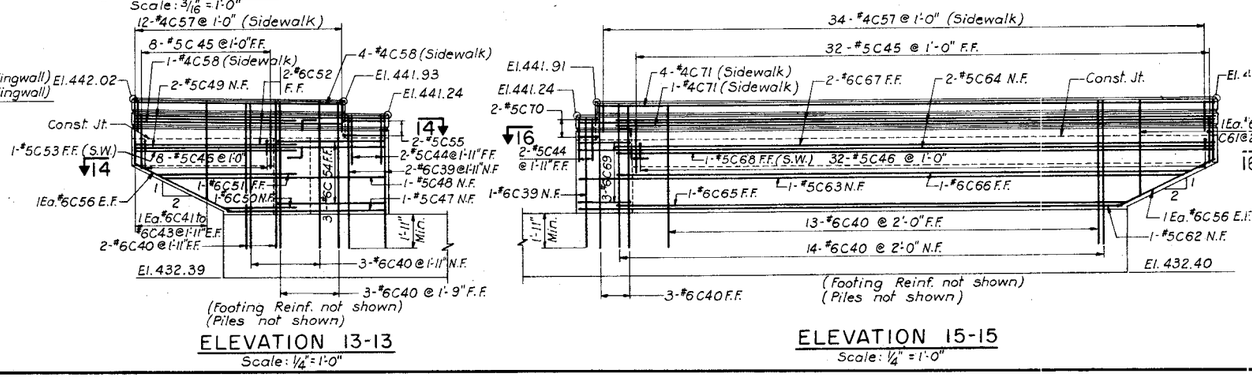




FOOTING PLAN
Scale: 3/16"=1'-0"



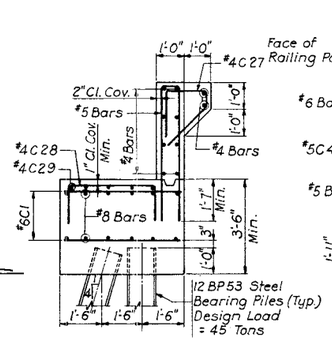
ELEVATION 11-11
Scale: 3/16"=1'-0"



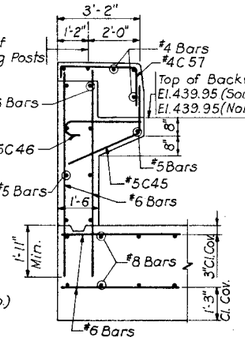
ELEVATION 13-13
Scale: 1/4"=1'-0"

ELEVATION 15-15
Scale: 1/4"=1'-0"

SECTION 10-10
Scale: 3/8"=1'-0"



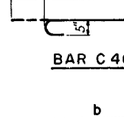
SECTION 12-12
Scale: 3/8"=1'-0"



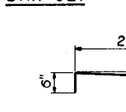
BENT BARS SCHEDULE			
Bar	a	b	∝°
C24	4'-6"	8"	—
C25	5'-6"	8"	—
C28	1'-0"	3'-3"	—
C30	2'-9"	3'-9"	113°
C32	1'-9"	26'-8"	113°
C35	3'-0"	13'-6"	112°
C36	3'-0"	26'-2"	112°
C37	2'-0"	26'-2"	112°
C45	2'-0"	3'-0"	111°
C54	2'-10"	4'-6"	—
C55	2'-3"	2'-6"	—
C69	2'-8"	2'-10"	—
C70	1'-0"	2'-6"	—

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete, Class A	Cu. Yd.	112.5
Reinforcing, Steel	Lb.	8,007
		—

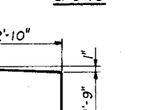
BARS C24, C25 & C28



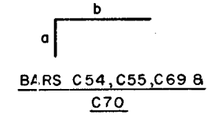
BAR C27



BARS C30, C32 C35, C36, C37, C38 & C45

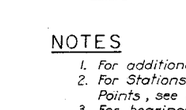


BAR C46



BAR C57

BARS C54, C55, C69 & C70



BILL OF STEEL
ABUTMENT IW

BAR	NO.	SIZE	LENGTH	BAR	NO.	SIZE	LENGTH
C1	157	#6	4'-0"	C41 to C43	2 Ea.	#6	3'-2" to 5'-2"
C2 to C6	1 Ea.	#6	2'-0" to 4'-0"	C44	4	#5	2'-8"
C7 to C16	1 Ea.	#6	1'-9" to 4'-3"	C45	40	#5	5'-0"
C17	8	#6	13'-3"	C46	40	#5	5'-5"
C18 to C20	2 Ea.	#6	4'-9" to 10'-6"	C47	1	#5	8'-8"
C21	24	#8	32'-3"	C48	1	#5	12'-0"
C22	12	#8	16'-6"	C49	2	#5	13'-8"
C23	12	#6	31'-0"	C50	1	#6	4'-6"
C24	61	#5	9'-8"	C51	1	#6	7'-10"
C25	13	#5	11'-8"	C52	2	#6	9'-6"
C26	10	#5	5'-6"	C53	1	#5	9'-3"
C27	75	#4	7'-0"	C54	3	#6	7'-4"
C28	25	#4	5'-3"	C55	2	#5	4'-9"
C29	25	#4	5'-0"	C56	4	#6	5'-6"
C30	4	#4	6'-6"	C57	46	#4	5'-1"
C31	3	#4	28'-4"	C59 to C61	2 Ea.	#6	2'-11" to 4'-11"
C32	3	#4	28'-5"	C62	1	#5	29'-8"
C33	2	#4	26'-6"	C63	1	#5	33'-0"
C34	8	#4	24'-8"	C64	2	#5	34'-8"
C35	2	#4	16'-6"	C65	1	#6	28'-8"
C36	3	#4	29'-2"	C66	1	#6	32'-0"
C37	3	#4	28'-2"	C67	2	#6	33'-8"
C38	2	#4	26'-3"	C68	1	#5	33'-4"
C39	3	#6	7'-1"	C69	3	#6	5'-6"
C40	38	#6	7'-9"	C70	2	#5	3'-6"
				C71	5	#4	33'-6"
				C58	5	#4	11'-3"

NOTES

1. For additional Notes, see Dwg. No. 36-1.
2. For Stations and Coordinates of Working Points, see Dwg. No. 36-2.
3. For bearings of all stringers, see Dwg. No. 36-2.
4. For Bearing Details, see Dwg. No. ST-2.
5. For Anchor Bolt Details, see Dwg. No. ST-6.
6. For Section H-H, see Dwg. No. ST-3.
7. For Section T-T, see Dwg. No. ST-5.
8. Clear cover for reinforcing is from face of concrete to face of bar.
9. Batter all battered piles 4 on 1. Battered piles indicated as ⊥.
10. For Railing Details, see Dwgs. No. R1 & R2.

Recommended by:
PRAEGER — KAVANAGH
CONSULTING ENGINEERS
In Charge of G. Mowery
Made by P.J.
Traced by P.J.
Checked by C.M.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

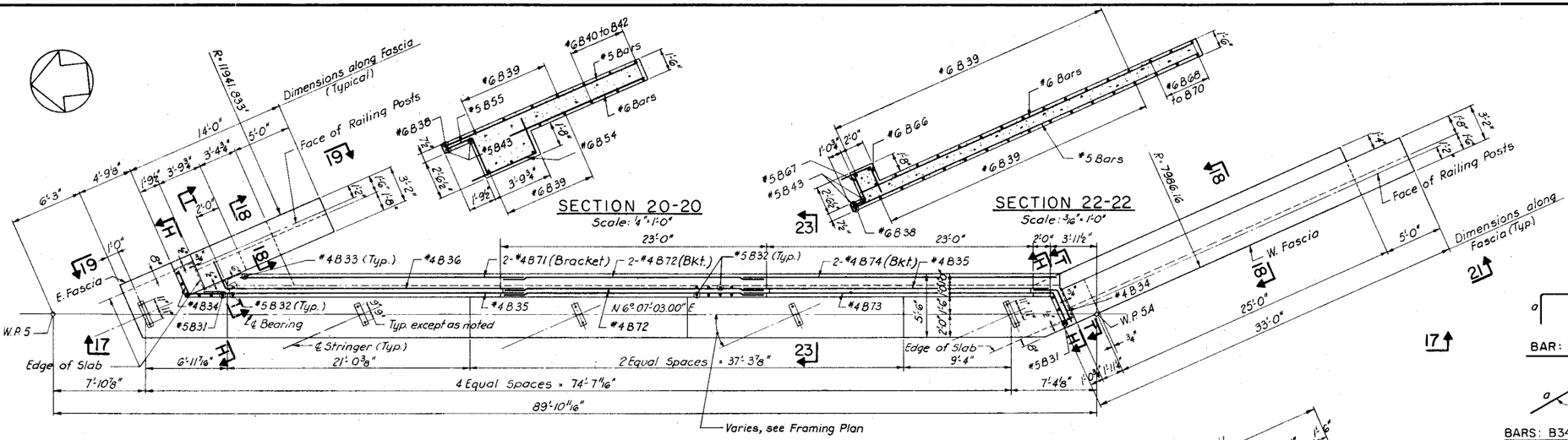
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
ABUTMENT IW

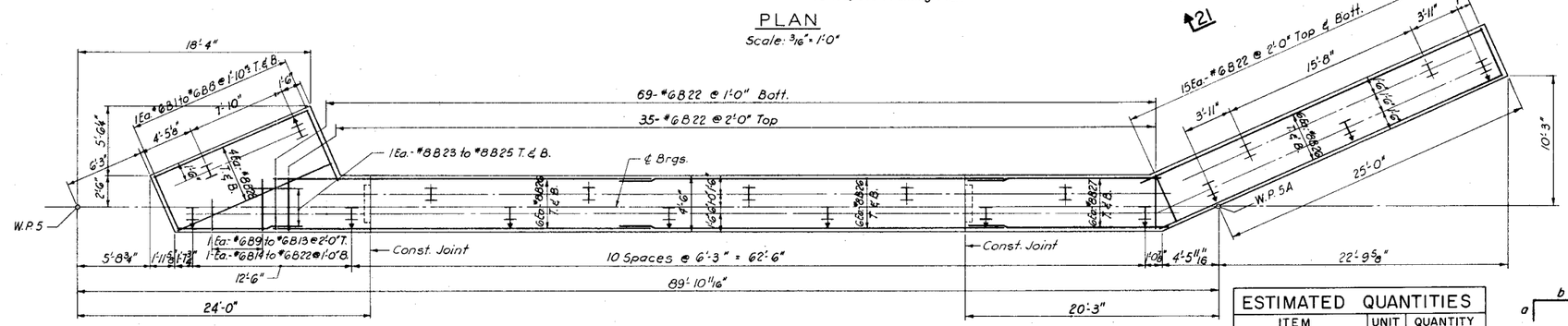
CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

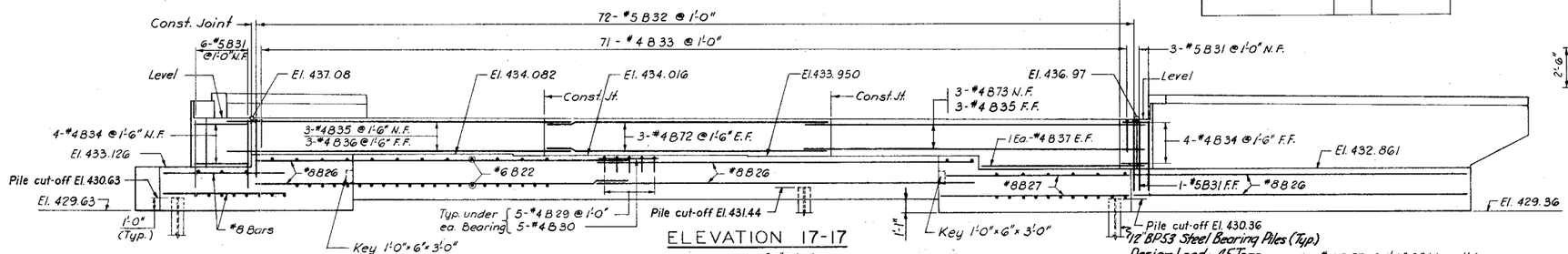
SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-6
SHEET NO. 57

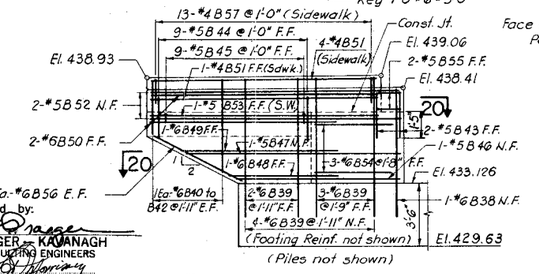
K-10-131

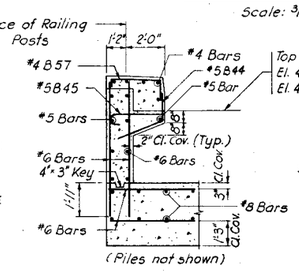
FED. ROAD DIST. NO.	T E N N.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 PT. II	1961	58	77
CONTRACT NO.					

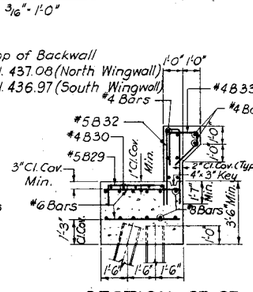


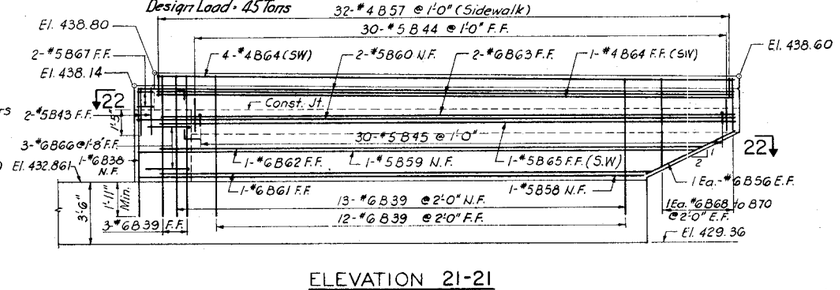










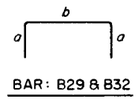


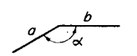
ESTIMATED QUANTITIES

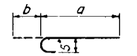
ITEM	UNIT	QUANTITY
Concrete, Class A	Cu. Yd.	107.5
Reinforcing, Steel	Lb.	7,379

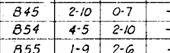
BENT BARS SCHEDULE

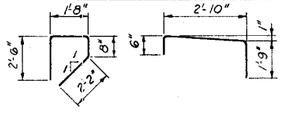
Bar	a	b	α
B29	1-0	3-3	-
B32	4-7	0-8	-
B33	Special		-
B34	2-9	2-9	114°
B36	2-9	24-9	114°
B44	2-0	3-0	111°
B45	2-10	0-7	-
B54	4-5	2-10	-
B55	1-9	2-6	-
B57	Special		-
B66	2-8	2-10	-
B67	1-0	2-6	-
B73	2-9	26-9	114°











BILL OF STEEL

ABUTMENT 2E

Bar	No.	Size	Length	Bar	No.	Size	Length
B1	2	#6	4-6	B38	2	#6	7-0
B2	2		4-9	B39	37	6	7-9
B3	2		5-0	B40	2	6	2-11
B4	2		5-3	B41	2	6	3-11
B5	2		5-6	B42	2	6	4-11
B6	2		5-9	B43	4	5	2-8
B7	2		6-0	B44	39	5	5-0
B8	2		6-3	B45	39	5	3-5
B9	1		2-0	B46	1	5	8-8
B10	1		2-6	B47	1	5	12-0
B11	1		3-0	B48	1	6	5-1
B12	1		3-6	B49	1	6	8-5
B13	1		4-0	B50	2	6	10-1
B14	1		2-0	B51	5	4	11-9
B15	1		2-3	B52	2	5	13-8
B16	1		2-6	B53	1	5	11-9
B17	1		2-9	B54	3	6	7-3
B18	1		3-0	B55	2	5	4-3
B19	1		3-3	B56	4	6	5-6
B20	1		3-6	B57	45	4	5-1
B21	1		3-9	B58	1	5	27-8
B22	135	6	4-0	B59	1	5	31-0
B23	2	8	7-6	B60	2	5	32-8
B24	2	8	9-0	B61	1	6	26-9
B25	2	8	10-6	B62	1	6	30-1
B26	24	8	30-9	B63	2	6	31-9
B27	12	8	15-6	B64	5	4	31-6
B28	8	8	13-3	B65	1	5	31-6
B29	25	4	5-3	B66	3	6	5-6
B30	25	4	5-0	B67	2	5	3-6
B31	10	5	5-6	B68	2	6	2-8
B32	72	5	9-10	B69	2	6	3-8
B33	71	4	7-0	B70	2	6	4-8
B34	8	4	5-6	B71	2	4	23-6
B35	6	4	26-6	B72	8	4	22-9
B36	3	4	27-6	B73	3	4	29-6
B37	2	4	12-8	B74	2	4	26-6

NOTES

1. For additional Notes, see Dwg. No. 36-1.
2. For Stations and Coordinates of Working Points, see Dwg. No. 36-2.
3. For bearings of all stringers, see Dwg. No. 36-2.
4. For Bearing Details, see Dwg. No. ST-2.
5. For Anchor Bolt Details, see Dwg. No. ST-6.
6. For Section H-H, see Dwg. No. ST-3.
7. For Section T-T, see Dwg. No. ST-3.
8. Clear cover for reinforcing is from face of concrete to face of bar.
9. Batter all battered piles 4 on 1. Battered piles indicated as I
10. For Railing Details, see Dwgs. No. R1 & R2.

Recommended by:
PRAEGER - KAVANAGH
CONSULTING ENGINEERS
In Charge of
Made by
Traced by
Checked by

Rev. 8-28-61

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

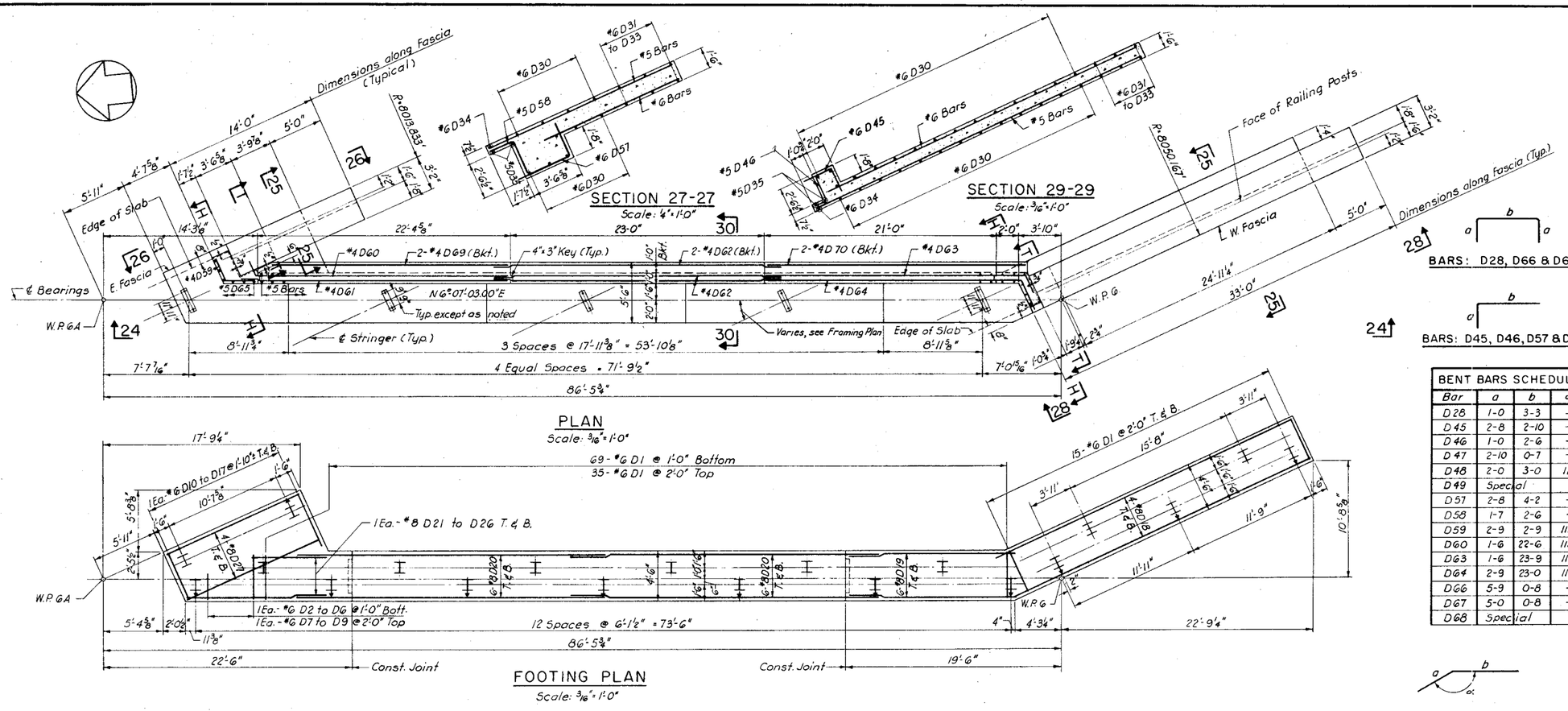
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
ABUTMENT 2E

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

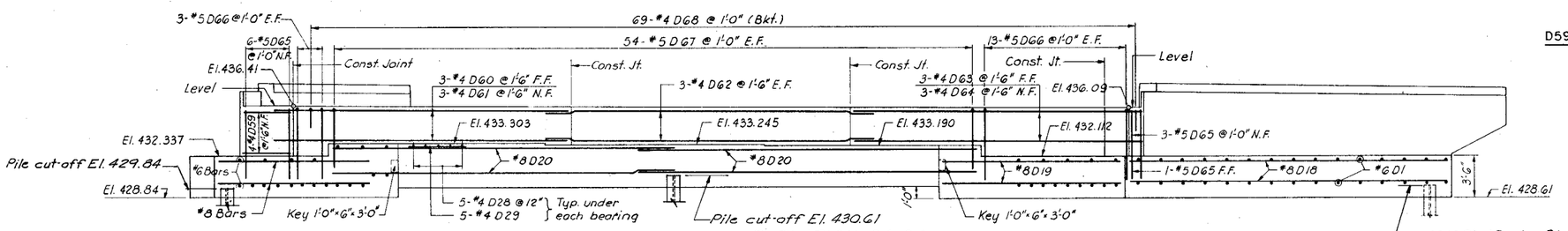
SCALE	As Shown
DATE	Aug. 1961
DRAWING NO.	36-7
SHEET NO.	58

K-10-132

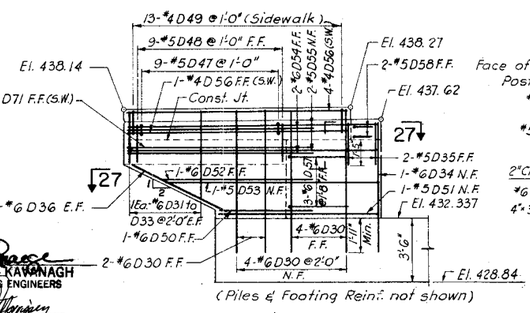
FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 PT. II	1961	59	77
CONTRACT NO.					



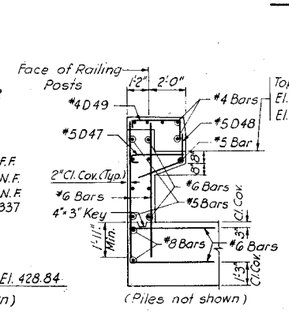
FOOTING PLAN
Scale: ³/₁₆"=1'-0"



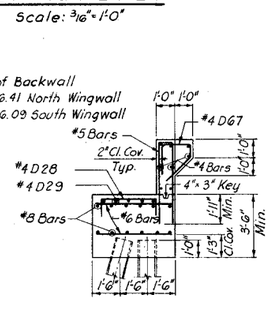
ELEVATION 24-24
Scale: ³/₁₆"=1'-0"



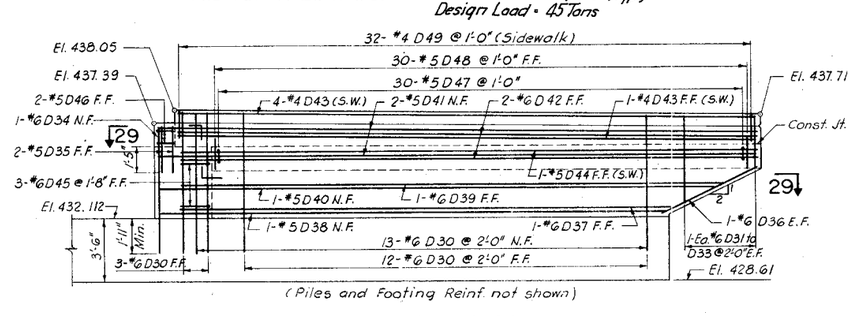
ELEVATION 26-26
Scale: ¼"=1'-0"



SECTION 25-25
Scale: ¼"=1'-0"



SECTION 30-30
Scale: ¼"=1'-0"



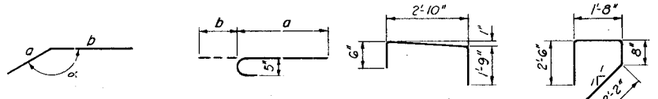
ELEVATION 28-28
Scale: ¼"=1'-0"

BENT BARS SCHEDULE

Bar	a	b	∝
D28	1-0	3-3	–
D45	2-8	2-10	–
D46	1-0	2-6	–
D47	2-10	0-7	–
D48	2-0	3-0	111°
D49	Special		
D57	2-8	4-2	–
D58	1-7	2-6	–
D59	2-9	2-9	115°
D60	1-6	22-6	115°
D63	1-6	23-9	115°
D64	2-9	23-0	115°
D66	5-9	0-8	–
D67	5-0	0-8	–
D68	Special		

BILL OF STEEL
ABUTMENT 2W

BAR	NO.	SIZE	LENGTH	BAR	NO.	SIZE	LENGTH
D1	134	#6	4-0	D45	3	#6	5-6
D2 to D6	1Ea.	6	2-3 to 4-0	D46	2	5	3-6
				D47	39	5	3-5
D7 to D9	1Ea.	6	2-3 to 4-0	D48	39	5	5-0
				D49	45	4	5-1
D10 to D17	2Ea.	6	4-6 to 6-3	D50	1	6	5-9
				D51	1	5	8-6
D18	8	8	29-6	D52	1	6	8-9
D19	12	8	15-0	D53	1	5	12-9
D20	24	8	28-6	D54	2	6	10-9
D21 to D26	2Ea.	8	6-9 to 12-3	D55	2	5	13-8
				D56	5	4	12-0
D27	8	8	13-0	D57	3	6	6-10
D28	25	4	5-3	D58	2	5	4-1
D29	25	4	5-0	D59	4	4	5-6
D30	38	6	7-9	D60	3	4	24-0
D31 to D33	2Ea.	6	2-8 to 4-8	D61	3	4	24-0
				D62	8	4	26-3
D34	2	6	7-0	D63	3	4	25-3
D35	4	5	2-8	D64	3	4	25-9
D36	4	6	5-6	D65	10	5	5-9
D37	1	6	26-9	D66	16	5	12-2
D38	1	5	27-8	D67	54	5	10-8
D39	1	6	30-1	D68	69	4	7-0
D40	1	5	31-0	D69	2	4	21-0
D41	2	5	32-8	D70	2	4	23-6
D42	2	6	31-9	D71	1	5	12-0
D43	5	4	31-6				
D44	1	5	31-6				



NOTES

1. For additional Notes, see Dwg. No. 36-1.
2. For stations & coordinates of Working Points, see Dwg. No. 36-2.
3. For bearings of all stringers, see Dwg. No. 36-2.
4. For Anchor Bolt Details, see Dwg. No. 57-6.
5. For Section H-H, see Dwg. No. 57-3.
6. For Section T-T, see Dwg. No. 57-5.
7. For Bearing Details, see Dwg. No. 57-2.
8. Clear cover for reinforcement is from face of concrete to face of bar.
9. Batter all battered piles 4 on 1. Battered piles indicated as ⏚.
10. For Railing Details, see Dwgs. No. R14 R2

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Concrete, Class A	Cu. Yd.	105.4
Reinforcing, Steel	Lb.	7,973

Recommended by: PRAEGER — KAVANAGH CONSULTING ENGINEERS
In Charge of: [illegible]
Made by: LP
Traced by: LP
Checked by: C.M.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
ABUTMENT 2W

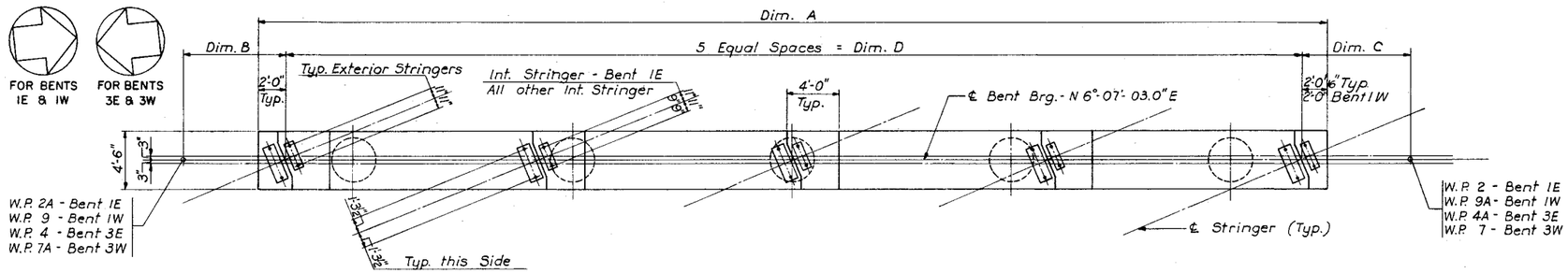
CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	As Shown
DATE	Aug. 1961
DRAWING NO.	36-8
SHEET NO.	59

Rev. 8-30-61

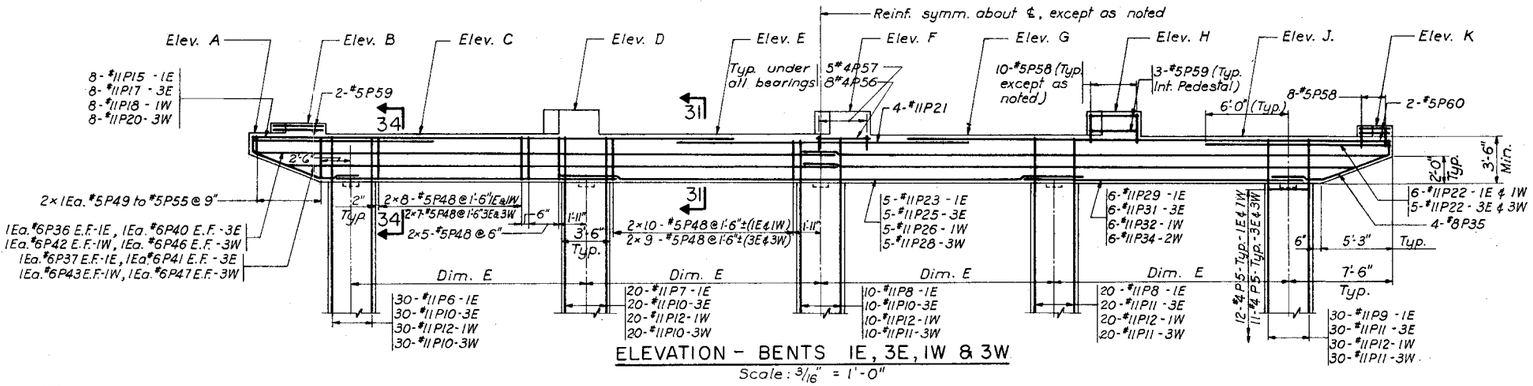
K-10-133

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)84 PT. II	1961	60	77
CONTRACT NO.					



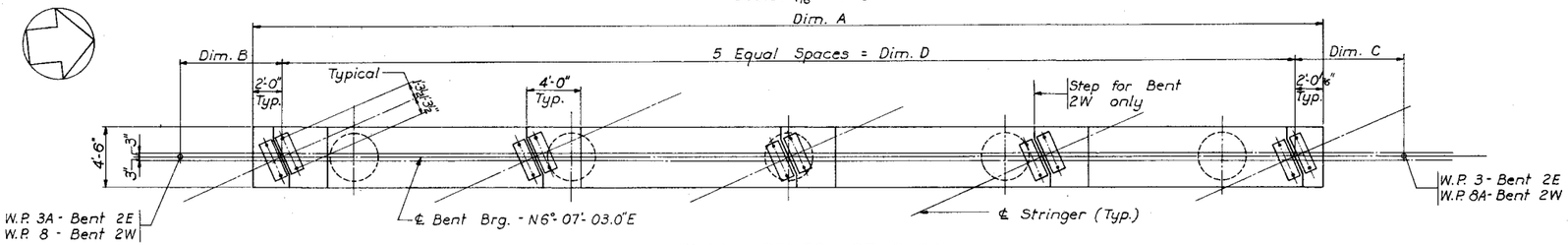
PLAN - BENTS 1E, 3E, 1W & 3W

Scale: 3/16" = 1'-0"



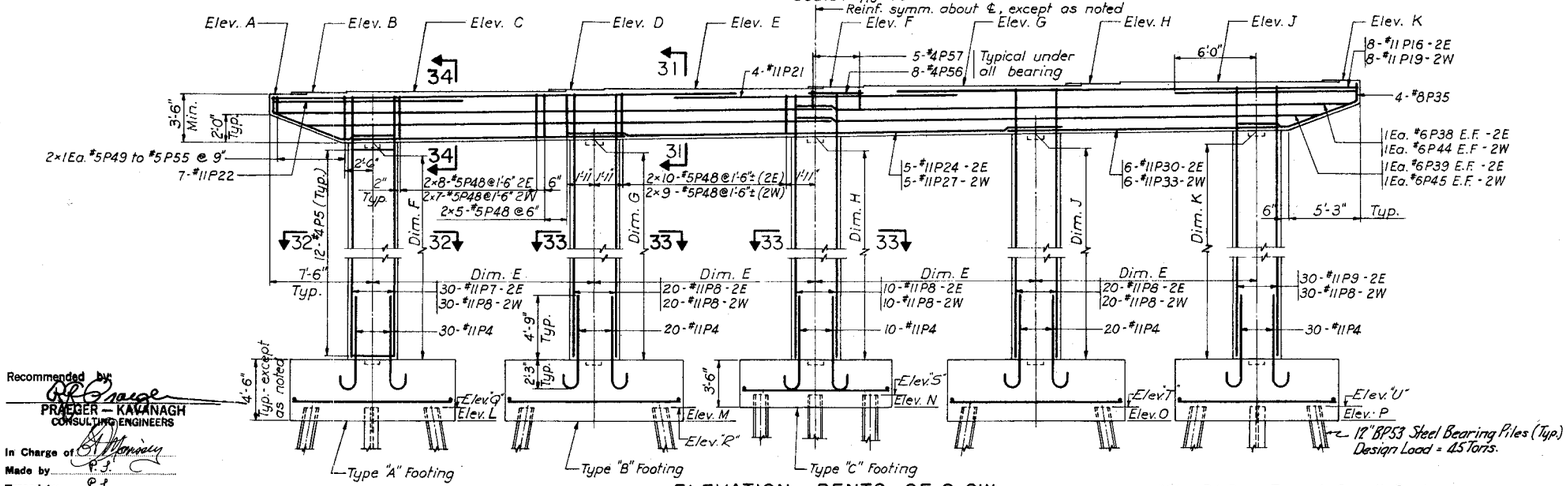
ELEVATION - BENTS 1E, 3E, 1W & 3W

Scale: 3/16" = 1'-0"



PLAN - BENTS 2E & 2W

Scale: 3/16"=1'-0"



ELEVATION - BENTS 2E & 2W

Scale: 3/16" = 1'-0"

Note: P4 Bars Typical for all Bents.

TABLE OF DIMENSIONS & ELEVATIONS

	BENT 1E	BENT 2E	BENT 3E	BENT 1W	BENT 2W	BENT 3W
Dim. A	83'-2 1/2"	81'-4 3/4"	79'-8 1/2"	80'-10"	79'-2 1/8"	77'-0 3/8"
Dim. B	7'-9 3/4"	7'-5 5/8"	8'-0 1/16"	7'-7"	7'-4 7/8"	7'-8 15/16"
Dim. C	8'-4 9/16"	8'-2 1/4"	7'-5 11/16"	8'-1 1/2"	7'-11 3/8"	7'-2 1/4"
Dim. D	79'-2 7/16"	77'-4 11/16"	75'-8 7/16"	76'-10"	75'-2 1/16"	73'-0 5/16"
Dim. E	17'-0 5/8"	16'-7 3/16"	16'-2 1/8"	16'-5 1/2"	16'-0 1/2"±	15'-6 1/16"±
Dim. F	11'-9"	11'-6"	10'-6"	12'-0"	11'-3"	10'-6"
Dim. G	11'-6"	11'-3"	10'-6"	12'-0"	11'-3"	10'-6"
Dim. H	11'-3"	11'-3"	10'-6"	12'-0"	11'-3"	10'-9"
Dim. J	11'-3"	11'-3"	10'-9"	12'-0"	11'-3"	10'-9"
Dim. K	11'-0"	11'-0"	10'-9"	12'-0"	11'-3"	10'-9"
Elev. A	434.914	434.040	433.117	434.399	433.220	432.308
Elev. B	435.503	434.045	433.697	434.998	433.223	432.880
Elev. C	434.884	434.116	433.068	434.480	433.296	432.267
Elev. D	436.420	434.118	434.640	436.029	433.299	433.832
Elev. E	434.827	434.163	432.998	434.551	433.362	432.207
Elev. F	436.362	434.164	434.571	436.099	433.365	433.770
Elev. G	434.753	434.195	432.930	434.616	433.429	432.147
Elev. H	436.287	434.195	434.502	436.161	433.434	433.712
Elev. J	434.652	434.190	432.849	434.643	433.476	432.078
Elev. K	435.237	434.199	433.421	435.248	433.481	432.640
Elev. L	415.13	414.54	414.57	414.40	413.97	413.77
Elev. M	415.33	414.33	414.51	414.46	414.03	413.72
Elev. N	416.52	415.37	415.46	415.52	415.10	414.67
Elev. O	415.46	414.90	414.15	414.58	414.16	413.38
Elev. P	415.65	415.19	414.10	414.64	414.23	413.33
Elev. Q	416.13	415.54	415.57	415.40	414.97	414.77
Elev. R	416.33	415.33	415.51	415.46	415.03	414.72
Elev. S	417.52	416.37	416.46	416.52	416.10	415.67
Elev. T	416.46	415.90	415.15	415.58	415.16	414.38
Elev. U	416.65	416.19	415.10	415.64	415.23	414.33

NOTES

1. For additional Notes, see Dwg. No. 36-1.
2. For Stations and Coordinates of Working Points, see Dwg. No. 36-2.
3. For Bearing of Stringers, see Dwg. No. 36-2.
4. For Bearing Details, see Dwg. No. ST-2.
5. For Anchor Bolt Details, see Dwg. No. ST-6.
6. For Payment Lines, see Dwg. No. ST-1.
7. For Pile Splice Details, see Dwg. No. ST-2.
8. Clear cover for reinforcing is from face of concrete to face of bar.
9. For Footing and Pedestal Details Sections 31-31, 32-32, 33-33 and 34-34, Bar List and Quantities, see Dwg. No. 36-10.

Recommended by: R. L. Grange
PRAEGER - KAVANAGH
CONSULTING ENGINEERS

In Charge of R. L. Kavanagh
Made by P.J.
Traced by P.J.
Checked by M.S.R.

Rev. 8-28-61

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

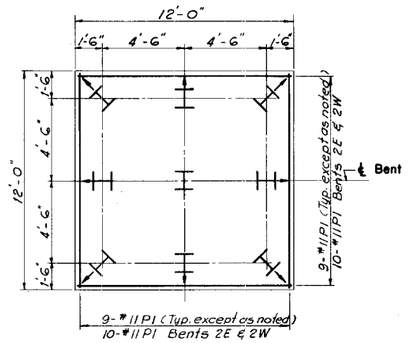
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1ST STREET
BENTS 1E, 2E, 3E, 1W, 2W & 3W

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

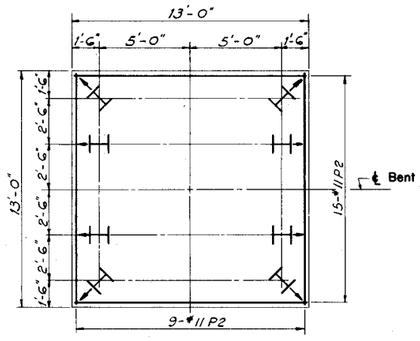
SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-9
SHEET NO. 60

K-10-134

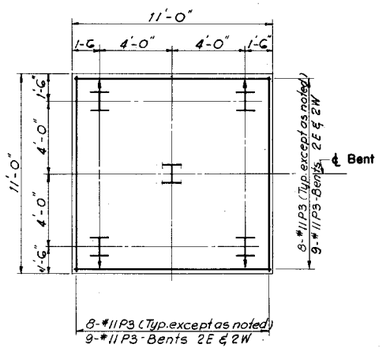
FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		I-65-3(10)84 Pt. II	1961	61	77
CONTRACT NO.					



TYPE A

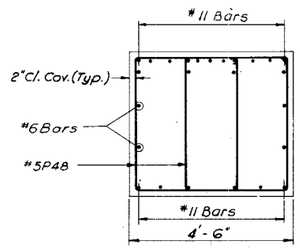


TYPE B

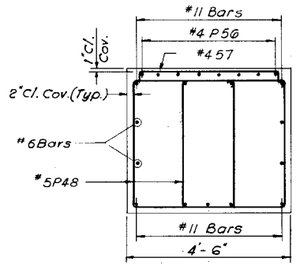


TYPE C

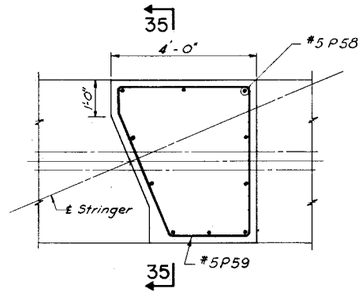
FOOTING PLANS
Scale: 1/4"=1'-0"



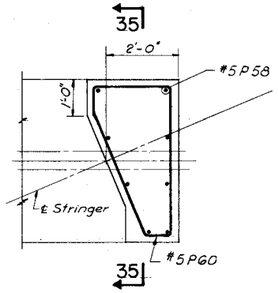
SECTION 34-34
Scale: 1/2"=1'-0"



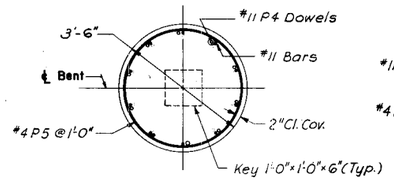
SECTION 31-31
Scale: 1/2"=1'-0"



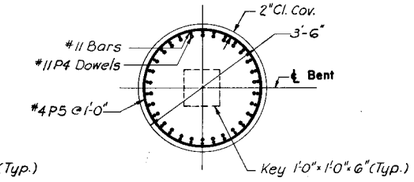
PLAN



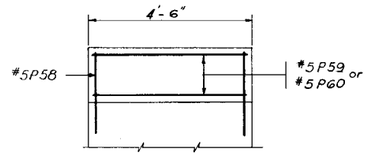
PLAN



SECTION 33-33
Scale: 1/2"=1'-0"



SECTION 32-32
Scale: 1/2"=1'-0"



SECTION 35-35

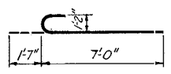
PEDESTAL DETAILS
Scale: 1/2"=1'-0"

BILL OF STEEL
STRUCTURE 36A

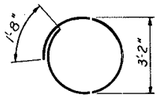
Mark	Size	Length	NUMBER Bent 1E	Bent 2E	Bent 3E
P 1	11	11 - 6	36	40	36
P 2	11	12 - 6	48	48	48
P 3	11	10 - 6	16	18	16
P 4	11	8 - 7	110	110	110
P 5	4	11 - 8	60	60	55
P 6	11	15 - 0	30		
P 7	11	14 - 9	20	30	
P 8	11	14 - 6	30	50	
P 9	11	14 - 3	30	30	
P10	11	13 - 9			60
P11	11	14 - 0			50
P15	11	35 - 6	16		
P16	11	34 - 6		16	
P17	11	33 - 9			16
P21	11	21 - 3	4	4	4
P22	11	13 - 3	12	14	10
P23	11	38 - 9	5		
P24	11	38 - 0		5	
P25	11	37 - 0			5
P29	11	21 - 9	12		
P30	11	21 - 3		12	
P31	11	21 - 0			12
P35	8	10 - 0	8	8	8
P36	6	42 - 9	4		
P37	6	40 - 3	4		
P38	6	41 - 9		4	
P39	6	39 - 3		4	
P40	6	41 - 0			4
P41	6	38 - 6			4
P48	5	11 - 8	92	92	84
P49 to P55	5	8 - 0 to 11 - 8	4 Ea.	4 Ea.	4 Ea.
P56	4	5 - 0	40	40	40
P57	4	6 - 0	25	25	25
P58	5	3 - 0	48	-	48
P59	5	15 - 6	11	-	11
P60	5	12 - 8	2	-	2

BILL OF STEEL
STRUCTURE 36B

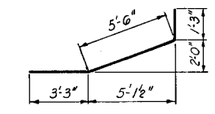
Mark	Size	Length	NUMBER Bent 1W	Bent 2W	Bent 3W
P 1	11	11 - 6	36	40	36
P 2	11	12 - 6	48	48	48
P 3	11	10 - 6	16	18	16
P 4	11	8 - 7	110	110	110
P 5	4	11 - 8	60	60	55
P 6	11	14 - 6		110	
P 7	11	13 - 9			50
P11	11	14 - 0			60
P12	11	15 - 3	110		
P18	11	34 - 6	16		
P19	11	33 - 6		16	
P20	11	32 - 6			16
P21	11	21 - 3	4	4	
P22	11	13 - 3	12	14	10
P26	11	37 - 9	5		
P27	11	36 - 9		5	
P28	11	35 - 9			5
P32	11	21 - 3	12		
P33	11	20 - 9		12	
P34	11	20 - 3			12
P35	8	10 - 0	8	8	8
P42	6	41 - 6	4		
P43	6	39 - 0	4		
P44	6	40 - 6		4	
P45	6	38 - 0		4	
P46	6	39 - 6			4
P47	6	37 - 0			4
P48	5	11 - 8	92	84	84
P49 to P55	5	8 - 0 to 11 - 8	4 Ea.	4 Ea.	4 Ea.
P56	4	5 - 0	40	40	40
P57	4	6 - 0	25	25	25
P58	5	3 - 0	48	-	48
P59	5	15 - 6	11	-	11
P60	5	12 - 8	2	-	2



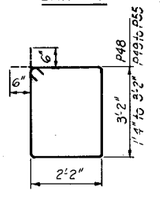
BAR P4



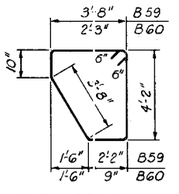
BAR P5



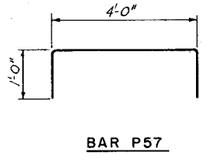
BAR P35



BARS: P48, P49 TO P55



BARS: P59 & P60



BAR P57

ESTIMATE OF QUANTITIES

ITEM	UNIT	STRUCTURE 36A BENT 1E	BENT 2E	BENT 3E	STRUCTURE 36B BENT 1W	BENT 2W	BENT 3W
Concrete - Class A	Cu.Yds.	190.4	185.8	187.1	190.2	184.5	185.2
Reinforcing Steel	Lbs.	29,722	29,647	29,741	29,933	29,385	28,549

NOTES
1. For additional Notes, see Dwg. No. 36-1.
2. For Pile Splice Details, see Dwg. No. ST-2.
3. Clear cover for reinforcing is from face of concrete to face of bar.
4. Batter all battered piles 6 on 1. Battered piles indicated as ↧
5. Work this drawing with Dwg. No. 36-9.

Recommended by: P.G. Praeger
PRAEGER – KAVANAGH
CONSULTING ENGINEERS
In Charge of G.F. Mooney
Made by O.M.
Traced by O.M.
Checked by M.S.R.

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 Pt. II

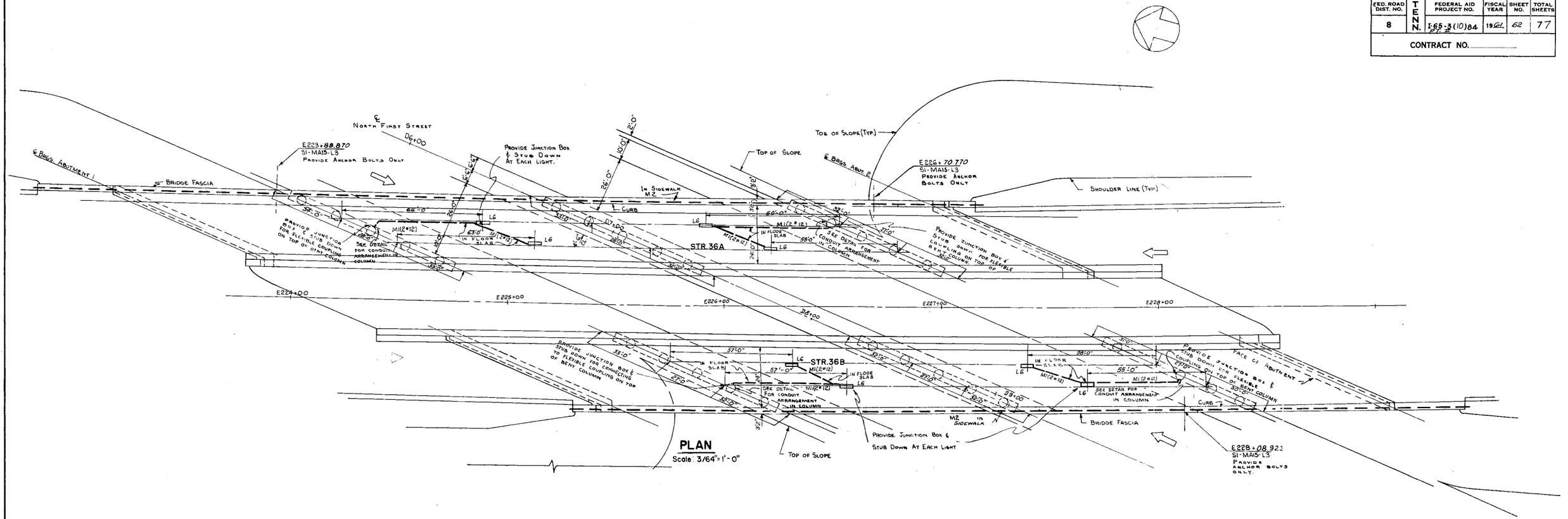
STRUCTURE NOS. 36A & 36B
LINE "E" OVER NORTH 1st STREET
BENT DETAILS

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

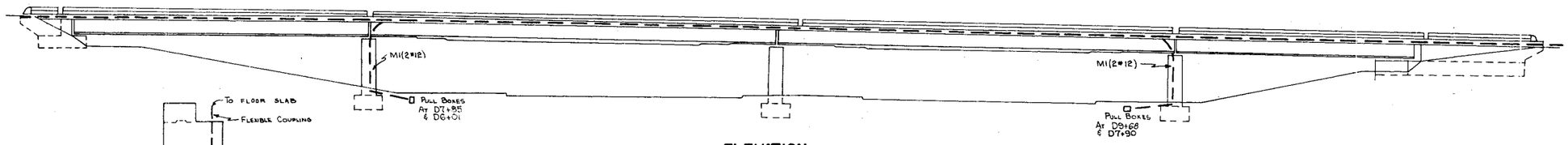
SCALE As Shown
DATE Aug. 1961
DRAWING NO. 36-10
SHEET NO. 61

K-10-135

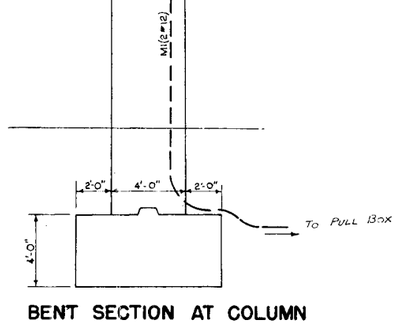
FED. ROAD DIST. NO.		FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	I-65-3(10)84 Pt. II	1961	62	77
CONTRACT NO.					



PLAN
Scale: 3/64"=1'-0"



ELEVATION
Scale: 1/16"=1'-0"



BENT SECTION AT COLUMN
Scale: 1/4"=1'-0"

Refer to: Lighting Plan Drawing 1-15A
Lighting Detail Drawings ED-1, ED-3, ED-4, ED-7A

—— —— Conduit in Concrete or Buried
—— —— Conduit Surface Mounted

ESTIMATED QUANTITIES – BRIDGE CONTRACT			
ITEM	UNIT	STR. 36A	STR. 36B
2" METALLIC CONDUIT	LF	425	425
1" METALLIC CONDUIT	LF	222	212
ANCHOR BOLTS-LIGHT STANDARD ASSM	SET	2	1
MOUNTING FOR UNDERBRIDGE LUMINAIRE	EA.	4	4
UNDERBRIDGE LUMINAIRE	EA.	4	4
#12 AWG CONDUCTOR	LF	444	424

SCOPE OF WORK

BRIDGE CONTRACT:

STRUCTURE LIGHTING, STRUCTURES 36A & 36B, ITEMS 800-36A 800-36B

1. UNDERBRIDGE – PROVIDE COMPLETE INSTALLATION AS SHOWN.
2. PROVIDE CONDUIT, NO WIRE, IN SIDEWALKS AS SHOWN; CAP CONDUIT 6" BEYOND END OF WING WALL; PROVIDE EXPANSION COUPLINGS AT EACH BENT AND ABUTMENT ACROSS BRIDGE; PROVIDE ANCHOR BOLTS ONLY FOR LAMP STANDARDS AT LOCATIONS SHOWN.

Prepared for
CLARKE & RAPUANO
CONSULTING ENGRS., N.Y.
BY COTTRELL & HOUSE, INC.

In Charge of C. F. H. Burns
Made by
Traced by
Checked by

Revised Aug. 1961

DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
STATE OF TENNESSEE
INTERSTATE ROUTE NO. I-65-3(10)84 PT. II

LIGHTING PLAN
STRUCTURES NO. 36A & 36B

CLARKE & RAPUANO
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS
NEW YORK, N.Y.

SCALE	As Shown
DATE	Aug. 1961
DRAWING NO.	ED-48
SHEET NO.	62

K-10-136